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Addresses.

THE NEW ERA IN MEDICINE—WHAT IT MEANS TO CLEVELAND.*

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Before taking up for consideration this Society, its relations, its ideals, its accomplishments and its future prospects, it will be necessary to my purpose first to secure a broad view of our present duty by widening our horizon to the extent of clearly apprehending some, at least, of the present conditions of professional life in America.

THE NEW ERA IN MEDICINE.

At the risk of tiring you with a partial repetition of ideas that have been expressed elsewhere, but feeling that it is justified by its inherent importance, I earnestly urge you to recognize the fact that we are living in a new era of medicine. The change from past conditions has occurred so gradually, when compared to the span of one active life, that the transition has in large part escaped our notice. It is, however, of the utmost importance that we at once realize its full significance, in order that time may not longer be lost in taking advantage of new and fruitful opportunities. The change to which I refer, when considered as a phase of the history of medicine, seems almost cataclysmal. Evolution in Nature and in society at certain periods moves with astonishing rapidity after long intervals of rest. Within a generation the science of medicine has been born, and the art and practice have been recreated. To-day we are living in the midst of the process, yet it is sufficiently far advanced for us to understand something of its meaning and profitably to reflect upon the goal toward which we are developing.

Coördinate with and in consequence of the tremendous development of the natural sciences during the nineteenth century, medicine has become rational. Adapting the scientific method and appropriating much of the knowledge accumulated by the pioneers in the natural sciences, medicine has finally and completely thrown off the heavy shackles of empiricism, of dogma, and of a narrow unreason. Medicine has arisen from the domain of empiric art to a fixed position among the applied sciences. True, medical science while thus correctly characterized has not yet reached the stage of completeness required for the passive extinction of the last remnants of medical superstition, ignorance, and bigotry. The world does not yet apprehend the full significance of the change, and we yet have Eddyism, Dowieism, and a host of dishonest or misguided "isms" and "pathies." I do not agree with those who assert that these evidences of popular ignorance will continue so long as human nature remains unchanged. To do so is to disregard all the evidences supplied by the history of the development of knowledge. To hold this pessimistic belief is the same as it would have been in the Middle Ages to have asserted that the world in general would never know the paths of the planets, or the mass of the sun, or the law of gravitation, or the cause of the tides, or the circulation of the blood, or a hundred other truths which are so self-evident to the layman of to-day that he hardly realizes that they ever were unknown.

The medical profession, much less the layman, has not yet fully accustomed itself to its new environment of exact fundamental knowledge. Only the youngest among us have had the advantage of scientific educations. A distressingly large proportion of us still practice medicine very nearly with the same mental attitude as did our forefathers in medicine, who had none of the invaluable helps that have come to us through the growth of physiology, of pathology, of bacteriology, of pharmacology. Present students of medicine are being trained in accordance with the scientific method. In another generation they will constitute the profession of medicine. Shall we believe that the public will learn nothing from its intimate contact everywhere with these trained men? Has such a thing ever happened before? Never! Under such circumstances the people at large under modern conditions very promptly grasp much of the real significance of things. The hopelessly ignorant and the defective will, indeed, always be with us, but I am absolutely confident that in only a generation or two public opinion will have assimilated the broad conclusions of rational medicine, as it has the results of the evolution of all the sciences; and that general support for quacks, pretenders, faith-curists, and other preachers of the "isms" and "pathies" who depend for their success solely upon the ignorance of the public in relation to medical matters, will become absolutely impossible in civilized countries. To hold any other belief is to maintain that medicine is exempt from the natural laws of sociologic evolution. Such a supposition is preposterous.

THE FUTURE OF MEDICAL POLITY.

Medicine is every day gaining slowly and imperceptibly in public esteem. Our cessation of unseemly quarrels, our abandoning the discussion of dogmas, our devotion to the pursuit of real knowledge, our recognition from the workers in pure science, our common-sense methods, our rational attitude, are daily making a deep and permanent impress upon the minds of the educated

* Inaugural Address of the President of the Cleveland Medical Society, January 24, 1902.

portion of the public. The rest will follow as day follows night. The conclusion, then, is easy that medicine in the future is destined to play an increasingly large part in public affairs. Of this I do not admit the shadow of doubt. It is our present duty adequately to prepare ourselves for our new functions in the body politic. Day by day there come into our possession facts and generalizations which are of comparatively slight importance to each of us in his daily routine, but which possess the most intimate relations to the welfare of the whole commonwealth. In the protection of the public health, considered in its widest significance, medicine of the future is surely destined to play a first part in general polity. In the very nature of things it can not be otherwise. To a very considerable extent we are now ready to assume this burden, but as yet the community only faintly realizes the value to itself of the knowledge which we possess and which we are constantly increasing and defining. It is then our present duty to undertake the education of the public. This can be accomplished solely through the powerful voice of perfected medical organization, aided by the instruction in rationalism that the active physician can give to his clients as they come and go.

RISING PROFESSIONAL STANDARDS AND INFLUENCE.

The work has been begun. Having perfected the methods of medical education we have forced the states to demand that all who intend to practice medicine shall have been properly educated. We have insisted that the state shall itself determine the qualification of physicians, rather than to leave it to our schools. Further we have everywhere placed upon the statute-books laws regulating the care of cases of contagious or communicable disease, and laws for many other purposes connected with the protection of the public health. These have a most distinct educational value in creating a more healthy public sentiment toward sanitary control. The elimination of the more or less empiric and irregular and generally-disqualified practicians of the past, which is a steadily proceeding development, accompanied by the infiltration throughout the community of the younger and more scientifically educated practicians, is producing a marked and healthy change in the public mind. Perhaps many of you think this too roseate a view. But look at the occurrences in this city among those whom we formerly regarded as irregulars. Look at the present status of the newest medical delusion; its exponents by actual observation are unable to remain more than six months or so in any one locality, unless in case of the great cities where the pabulum is in larger quantity. Of the apostles of this Still delusion there are fewer to-day in Ohio than there were a year ago. Former fads were not so readily eliminated. It is clear that it is becoming increasingly difficult to "work" the public, although far too easy yet to quiet all sense of recrudescent danger.

I need only mention it in order to recall to your mind the infinite improvement in the methods of medical education which so prominently mark the advent of the new school of medicine. Think of the facilities now required to teach medicine; the paid teachers, the laboratories, the instruments of precision, the well-organized hospitals and clinics. To teach medicine to-day is indeed a formidable task; only a generation ago it was the recreation of the teacher. Rhetoric has been displaced by science. The schools that give evidence of future permanence have of necessity become departments of the universities. The school privately owned by the faculty is henceforth impossible. The spirit of university life and culture will forever hereafter be a powerful influence in medical training.

MEDICINE NOW A SCIENCE AS WELL AS AN ART.

The new school of medicine naturally divides itself into two or three broad departments. In the first place we find a line between the art and the science of medicine. Included in the science of medicine we find such well-recognized sciences as physiology, anatomy, pathology, bacteriology and hygiene. It seeks definitely to determine the cause and course of disease, and to know the exact mechanism of the reaction of the organism to remedial agents. The art of medicine on the other hand is concerned with the application of this coördinated knowledge to the study, the prevention, and the alleviation of concrete instances of disease. Within the art of medicine we find therapeutics, including surgery and its branches, physical diagnosis, and the larger part of the subjects grouped under the title "practice of medicine." Most of us necessarily are concerned solely with our art, but the science is at once the distinguishing feature of the new school of medicine and the indispensable and imperishable basis of our art.

PUBLIC MEDICINE.

Medicine may from another view-point be divided conveniently into two departments. The first deals with the individual instance of disease, the second with the health problems that concern the community as a whole. Improved educational methods are constantly perfecting our equipment for treating the individual. Up to the present we have been very halting in our methods of dealing with the problems of public medicine. These problems are daily growing in number and importance, and it is imperative that we should be prepared to meet them so fairly, so strongly, and so unanimously that we will gain the public respect and the satisfaction of having done our full duty. This can only be accomplished through our associating ourselves together so generally and so firmly that we will become a power in political affairs in so far as they may relate to medicine.

AN ERA OF GOOD FEELING.

The new school of medicine possesses one characteristic feature which stands out prominently and in marked contrast to the background formed by its antecedents. Professional progress has so often, indeed so usually, been retarded, even for a time arrested, by internal jealousies, personal quarrels, and the conflict of schools and cliques, that we should rejoice when we see about us so many evidences that physicians now view their professional conduct in a broader light, recognizing the desirability, the necessity, and the pleasure of maintaining cordial relations with all their fellows. Progress in this direction is by no means complete, and the chief agency in its steady promotion is the well-conducted medical society. More than all else we need to know each other and to be forced frequently to associate together. Often a few moments devoted to frank and hearty discussion of one of the unfortunate accidents of practice will make mutually respecting men of two doctors who, cherishing their misapprehension of each other, would otherwise drift into outspoken and lifelong enmity. Not seldom the social session of a medical society clears up long-standing disputes. This function of medical societies is not the least important, for unity of purpose and action inevitably develop from the establishment of harmony. Indeed, I think hardly any other one thing can be done by our profession which will so

V 3
190

promptly give us a high place in public esteem—an end much to be desired. Among the laity the disagreement of doctors has from time immemorial been the subject of levity. However, we have passed the turning point, and in this city even the laity has noted the change for the better. Perfected organization with its friendly association and its fraternal sharing of burdens is alone capable of continuing to its full fruition this happy tendency of modern medicine.

THE PUBLIC RELATIONS OF MEDICINE.

It is, however, principally of our present environment as affecting our own destinies and duties that I wish to speak now, and that is of the chiefest concern to each one of us here to-night. The fund of knowledge that has already accumulated as a result of the application to medicine of the scientific method is so vast that no one man pretends intimately to comprehend it all, and the possession of this trust inevitably brings with it power and responsibility. "Knowledge is power." Our knowledge may, must, be employed for the good of the whole world, as well as for the promotion of our own fortunes. The power that comes with it is all-sufficient to enable us to accomplish our full duty to the community. But we must each share in this responsibility, and stand ready to take up a part of the educated man's burden. Life is an opportunity to do good, to help our fellows, to leave the world a shade better than we found it, as well as a chance to secure some pleasure. He who misses the chief part of this opportunity loses that which above all else makes life worth living. The physician to-day has right to his hand an opportunity for rendering an illimitably beneficent service to his fellows which is far beyond that which comes to other men, because his knowledge closely affects the poignant problems of life, of health, of suffering, and of disease. This idea is not offered with any pretention of novelty. For at least a generation it has been repeated by thoughtful members of our profession. What I wish to make clear to-night is that never before has so favorable an opportunity been afforded us for actually doing that of which our forefathers in medicine dreamed.

PERFECTED ORGANIZATION.

No doubt some of you are tired of constantly having the benefits of perfected medical organization preached to you, but the importance of the subject is such that it may not be ignored. Medical organization is not a panacea for all the ills of mankind, nor a remedy for all existing defects in medical life. Effectively done, it will accomplish certain tasks to which our profession is pledged; pledged by the inexorable logic of events, not perhaps by voluntary expression on our part. Nor is the conception of the value of organization, of which you hear so much of late, a new one. The ground long since was thoroughly thought over by far-seeing minds amongst us. In all our recent discussion of this topic there is hardly a new idea. The real father of many of our ideas in this respect was Jerome Cochrane of Alabama, whose work was done under the difficult circumstances accompanying the "reconstruction period" in the Southern States. His writings during the early '70's breathe deeply of the spirit that now animates so many physicians throughout the Union. In his conception of the benefits of proper organization of the medical profession Cochrane has never been excelled for clearness of vision, force of presentation, or single-heartedness of speech and action. And the profession of Alabama has for 20 years been reaping the benefit, while the rest of us, with only a few exceptions, have sat in disorder awaiting somebody to carry the news a few miles and to do our work for us. In 1875 Cochrane wrote: "We have no hesitation in saying that the medical profession is fully able to bring about a reformation of all the evils from which it suffers; but this consummation, most devoutly to be wished, can not be accomplished by wishing—can not be accomplished either by means of grandiloquent speeches and paper resolutions—can, indeed, be accomplished only in one way, namely: by wise and resolute work, and by thorough organization and concert of action among the members of the profession." Seven years later he urged the Alabama men "to seek always the public good and not our own, and always to recognize the great principle that union and organization involve strength and permanence and lead on from conquest to conquest, while the assertion of individual rights and privileges, and the gratification of personal jealousies and ambitions are always the agents of disintegration and defeat."

To-night the particular is of more importance than the general, and I will spare your patience by at once asking your consideration of conditions existing in this city and by suggesting some apparent present duties of this Society. And to begin with, I will recite some mild criticisms of ourselves that have come to me from different members, for it is well to conduct a careful self-examination before undertaking new duties.

BUSINESS TO BE DONE BY THE COUNCIL.

A number of the members object to the time now occupied in the early part of our meetings by the consideration of the business affairs of the Society. Under the rules some business goes to the Council for preliminary consideration. It might be well, however, to go one step further and entrust the final disposition of most of our business to the Council, as is done by many societies. I should heartily favor such an arrangement, if the majority of the members wish it. Our history shows that the men who comprise the Council have always been such as might be fully entrusted under proper rules to dispose finally of nearly all the routine and new business of the Society, even including the election of new members. When the first Constitution of the Society was drawn I made such a proposition, but it was agreed that the Society itself would wish to consider all its business in detail. I am sure that day has passed. In case such added duty is given to the Council, I earnestly suggest that the members of the Board of Trustees be added to the other officers who now compose the Council. The Trustees are elected for terms of three years so that this would tend to ensure continuity in the policy of the Society.

COMMITTEE WORK.

Of late years the Committees of the Society have not shown the interest and energy which would do so much toward making the Society really accomplish work of permanent value. This criticism falls chiefly on the standing committees, but not all special committees may escape. The Society appointed a Committee to investigate our public schools from a medical standpoint, which spent some time and some of the Society's money in collecting data that have not been reported on. The resolution appointing the Committee was specific in its instructions, and its report should have been of value to the whole community, so that it is a matter for general regret that after nearly two years the Committee has expired without making a report. I wish to add that

during the present year Committees which appear to be slighting their duties must not be disappointed to receive a request for their resignations. The interest of the Society is in such matters paramount to all other considerations. A medical society will be of service to the profession just in proportion as it is conducted along business-like lines such as apply to other organizations.

And here is a good place to state the truism that office in a medical society is an opportunity to serve the profession, and no one of us should accept a position unless fully prepared and determined to give to it enough of his time to successfully perform its duties. This indeed should be the chief clause in the creed of a medical society, whatever its scope.

There are those who criticise society methods but who rarely ever attend a meeting or make any endeavor to remedy defects of which they complain. On such critics rests the chief responsibility for every real fault that they see. Those who wish to see the Society do differently should show the honesty of their criticism by coming right here and giving their influence to promote the best interests of the Society. The stay-at-home critic is certainly not practical, and to all appearances he is lacking in candor. I am fairly familiar with medical societies, and I feel confident of my ground when I assert that there is no society which, having fallen into some undesirable habit, can not in a short time be completely rescued by the determined efforts of even one or two serious and unselfish men.

Other members do not come to our meetings because they have evening office-hours and have so many patients that they can not leave them two evenings in a month, even though others at least equally busy are among our most regular attendants. These absentees are themselves the chief sufferers, and were medicine a selfish calling we would simply say that those who thus deny themselves the educational influence of society work will themselves pay the penalty, as younger and better educated men, equipped with the most recent methods, slip ahead. But the spirit of our calling is more kindly, and so we wish to prevail on these men to turn out to our meetings and keep abreast of the times.

Some of the younger members say that they do not feel free to read or discuss papers and cases before other members who are older in the profession. This is a matter of determination. The physician who has the confidence in himself necessary to undertake the charge of a patient seriously ill should never hesitate to express his convictions on any subject with which he has had experience. The members must not overlook the fact that when they take part in the proceedings of the Society, even to a very small extent, they are sure to find afterwards that the salient points of the subject under discussion are much more firmly impressed on their memory than they would have been by merely listening to others. So I urge every member to take advantage of the opportunities offered for taking an active part in Society work. I think that if provision were made for the meeting between times of small numbers of the members to quietly discuss various topics, they would in this way very soon acquire sufficient readiness of speech to enable them to take part in the proceedings of the Society. A little later I will offer some specific suggestions as to means for meeting this demand, which is, I think, quite of first importance.

ORIGIN AND WORK OF THIS SOCIETY.

The birth of this Society on February 3, 1893, was one of the early evidences of the liberal and progressive professional spirit which marks so distinctly the new era in medicine. Along with the application by physicians of the scientific method to the problems of physiology and pathology, and with the growth in medicine of the scientific spirit, there has come an appreciation of the catholicity of learning and of the brotherhood of knowledge. This Society was one of the first, and perhaps rather unconsciously, to mold itself according to the new conditions of professional thought and life. Arising to meet new conditions, and beginning without experience, the Society would have had to be superhuman to have wholly avoided mistakes in conduct, and as one of the early members I have no hesitation in admitting my full share in some of them. But having from its inception been guided by a clear aspiration to be of real service to the profession of Cleveland, the Society has profited by its errors, which have not been vital but merely incidental. I believe that it has been of definite service to the profession of this city. Were its only result to be found in the fact that it has brought about harmony in our professional relations, its existence would have been amply justified. But we all know that it has done a great deal more.

However, to-night it is chiefly to the future of the Society and of medicine in Cleveland that I would direct your attention. So far our work has been good, and in keeping with the spirit of the times, but progress is essential to the greatest usefulness in human affairs. We physicians of to-day are living in the most wonderful period of the history of medicine. Of this there is no shadow of doubt. Evolution in medical science and in professional thought is moving at a prodigious pace. We can not rest, or in but a moment we should be lost in the past. All over the United States thoughtful physicians are realizing that the time has come for the complete organization of the medical profession, in order that the commonwealth may receive to the fullest extent those real and great blessings which medical science is now prepared to offer and which will yearly, almost daily, increase in number and value.

TIME TO FURTHER PERFECT OUR ORGANIZATION.

What, then, can we physicians of Cleveland do to meet the ever-changing conditions of our professional life? I firmly believe that the time is now ripe for a further regeneration of our scheme of organization. I believe that it is now possible, indeed imperative, that we should organize ourselves on a still broader basis that shall give the opportunity to extend to a greater number of physicians the well-recognized benefits of society work, and to grant to the community the greatest usefulness of which we are now capable. I speak from some knowledge of professional conditions of other American cities when I say that I believe there is no other city in America in which the conditions are more favorable for working out to their fullest extent the possibilities for public service that are comprised in modern medicine. In other words, I believe that we medical men of Cleveland have to-day at our hands the opportunity of leading the way in demonstrating to the people and to the profession of this country just what of good can be accomplished by an organization of physicians thoroughly imbued with the high ideals and fully equipped with the perfected tools of the new school of medicine. Shall we allow our opportunity to slip by only to be seized by our confrères of some other community? I hope not.

EXISTING MEDICAL INSTITUTIONS OF CLEVELAND.

Let us look at our materials. We have here in Cleveland excellent institutions for teaching medicine and for caring for the sick. We have an earnest group of men thoroughly in touch with the activities, ideals, and practical worth of scientific medicine. We have a most excellent beginning for a first-class medical library. We have two good medical societies doing creditable scientific work, each in its organic law assuming to represent the medical thought of the city. We have two good medical journals whose reputation for cleanness of conduct is second to none in the United States, and they are wholly controlled by physicians. Plans are matured for merging these two publications into one journal that shall be owned and controlled by the profession of this city, and which hence will be thoroughly representative of the best that Cleveland can do for medical science and for medical polity. The amalgamation of these two journals into one active and clean publication, which shall in effect be one of the distinctive professional institutions of Cleveland, marks a tremendous step forward.

NEED FOR CONCENTRATION.

This, then, is a list of our tools. What shall we do with them? The suggestions as to how we shall answer this question are not original. The aim of the hour in medicine, as well as in all other progressive departments of human activity, is concentration and consolidation. The medical journals of Cleveland have met the demand. The hospitals in the nature of things are apart from this tendency. Most of us wish that for the greater prestige of the Cleveland profession the colleges were united, but that is a difficult problem, and one which is not for us to discuss to-night. We can only say that the schools are in good hands and that when the conditions for union become favorable, if they do, and we hope they will, those in control will meet the task in a frank, manly, and willing spirit. The scientific workers among us stand ready to assume their full share of the responsibility that naturally falls to them under the new order of things. The medical library provides an opportunity for the study of nearly all the best recent literature of medicine. The library is controlled by an independent association, has some permanent endowment, and owns the building in which it is housed. Its condition is highly encouraging. What concerns our purpose to-night is that the library needs a closer relation to the medical societies and to the profession as a whole. I think that our Society should set apart each year a fixed amount or percentage of its revenue to be added to the library endowment or used for whatever other library purpose seems most suitable. If sections or small subsidiary societies are arranged for, they should meet at the library. Its rooms furnish an ideal place of assembly for small society or section meetings to consider problems not yet ready for formal presentation to the whole profession and to clarify thought by the rapid and informal conversational method which is so effective. The time has come when gradually as need arises such groups should be formed and cordially supported by the representative medical organization. I believe that that society does the most good which reaches the greatest number of physicians, and so the most useful society in a city is the largest, but there is admittedly a very important function to be served by smaller groups which meet informally and perhaps oftener. To this I shall refer more specifically later.

UNITE OUR PRESENT SOCIETIES.

There now remains for discussion this evening the chief topic in immediate importance. Every one of you I doubt not guesses it readily. Of course, it is that of the union of our two medical societies into one new organization of enlarged scope, of broad foundations, of high ideals, of absolutely representative character, in fine of thorough equipment, so far as is now possible, for the work of the future. Some of you perhaps believe it to be impossible, unwise, and unnecessary; but my friends, it is easy of accomplishment if we will, and if we appreciate our new duties. It is, I am sure, the wisest thing that we can do, and above all I wish to impress upon you that under present and future conditions it is absolutely necessary. It is demanded by the steady processes of professional evolution, and if we now ignore this demand we shall for many years suffer the penalty that comes inevitably to those who ignore an opportunity for growth—namely, stagnation or even retrogression. Further, this much-to-be-desired end can now be attained without the least necessary sacrifice of any of the cherished methods of either present organization. A new organization started upon a proper basis can readily be devised to continue all the good features of the present societies and also to inaugurate and conduct to a successful issue many new undertakings for which there is now a real need.

REASONS FOR UNION.

First, as to the present necessity for this union. As you undoubtedly know, the American Medical Association has asked every State Society to re-organize itself upon one definite and suggested plan. It is difficult to see how our own State Society can ignore the request, and still more difficult to imagine any adequate reason for a refusal to comply with it. As other States are already heartily complying, and as our own State Society has a committee appointed to formulate the new plan of organization for presentation at its next meeting, it is certainly not assuming too much to take it for granted that it will follow the other States. This plan of organization is perfectly simple, and merely puts into effect in the common affairs of the medical profession the well-recognized American principles and forms of representative government. Already the American Medical Association has delegated all its business affairs to a body of less than 150 men in an association now numbering over 12,000 members. These delegates are to be elected by the various State Societies in proper ratio to their membership. The State Societies are asked to adopt a similar form, and in many the work is done. In one—Connecticut—this form of professional government has been in successful operation for over 100 years.

In putting it into execution in a State the plan of course will be for the state organization to turn over its business affairs to a body of delegates elected from the county societies. Of course, in any scheme of general organization some common unit is necessary, and by general consent the county medical society, as at present existing in all parts of the country, is recognized as the most useful and most readily available unit. It follows from these premises, then, as a necessary conclusion, that only one representative and affiliated society may be recognized in each county. As a necessary corollary to this it follows that, except under most extraordinary circumstances, no new society can arise to challenge this recognition. The new order of things has the element of permanence. In those counties which include large

cities this will in some instances for a time produce friction, though not in Boston, New York, Philadelphia, Baltimore, Cincinnati, or Chicago. Cincinnati deserves especial mention because she is our near neighbor and in our own state. Only a few years ago there existed there side by side the Cincinnati Medical Society and the Hamilton County Medical Society, a situation exactly analogous to ours at present, but with little difficulty they were both merged into the Cincinnati Academy of Medicine which now has a larger membership than had the two separate societies before the amalgamation. The lesson in this to us is direct and near to hand, the result has in every way been beneficial to the profession of Cincinnati, and our confrères in that city are fully prepared for the improved mode of organization. In Chicago, Cook County is represented by the Chicago Medical Society with its 1000 or 1100 members and its numerous correlated societies. I have already spoken of the undoubted benefits of small groups of medical men meeting quietly and informally to discuss those topics in which they are especially interested, and in which many others are little if at all concerned. So in Chicago they have a number of special societies, but each one requires that a physician to be eligible for membership must first be a member of the Chicago Medical Society. This provides adequate machinery for representative government, and places all the business interests of the profession in the care of one large representative society.

In the concrete, then, my suggestion is that we unite the Cleveland Medical Society and the Cuyahoga County Medical Society in a new organization to be known as the Cleveland Academy of Medicine, whose organic law shall be of the broadest and most liberal type, and whose aim shall be to forward the work of scientific medicine in Cleveland, to care for the material interests of the profession and to assist the community whenever the opportunity arises for the application to public affairs of the results of medical science. Those who are particularly and rightly attached to the small, informal, and quiet methods of the county society can at will meet their wants by organizing themselves into sections, societies, or clubs, whose membership shall be drawn from the membership of the Academy. This latter provision is necessary to preserve the representative functions of the Academy, and to enable us to turn upon the public the full force of our numbers, when occasion arises.

METHOD OF PROCEDURE.

To be specific, I recommend that the Society authorize the appointment of a committee of five whose duty it shall be to meet with a like committee from the County Society for the purpose of considering, outlining, and recommending a plan of union. As a preliminary the Secretary should be instructed to communicate with the County Society in order to first learn whether it is agreeable to that organization to receive our overtures. These negotiations should be conducted solely in the spirit of doing that which is best for medicine in Cleveland. In such a laudable undertaking both organizations should be willing to yield a point whenever necessary. As a matter of fact their methods of organization are so similar that little sacrifice will be necessary on either hand. Let us, then, at once approach this enterprise with a determination again to improve the status of medicine in Cleveland.

CONDITIONS TO BE MET BY THE NEW ORGANIZATION.

At present the Cleveland Medical Society meets twice a month from September to June inclusive, holding 20 meetings in a year, several of which are devoted to addresses by invited guests. The County Society meets once a month, holding 10 or 12 meetings a year. The programs of both organizations are kept well filled, and it would, I think, be detrimental to permit the consolidation of the societies to permanently reduce the number of medical meetings held in this city during a year. Therefore, in case the union is effected, as I earnestly hope, I recommend that at once a subsidiary clinical society shall be organized which shall hold its meetings at the library, thus at once replacing the good scientific work of the County Society, providing for a quiet society for free and informal discussion, and furnishing an attraction to draw more men to the library. This subsidiary society should in every respect be free from the control of the Academy, except that it should receive no members who are not members of the Academy. Other subsidiary societies can be organized on the same plan and with the same meeting-place, whenever the need arises. The time has come when we must recognize the fact that one large medical society with biweekly meetings does not meet all the needs of our medical community. The meetings of the County Medical Society once a month, while of distinct and unquestionable value, do not provide fully for the deficiency. Nor is the reason for this state of affairs far to seek. As a result of the rapid and tremendous accumulation of medical knowledge during the past generation no one of us is able to cover the whole field either in practice or in study. In consequence each of us can not any longer be expected to have a direct interest in each of the few phases of our knowledge that can be dealt with at the 30 medical meetings held in this city during the year. So we find that many men do not attend our meetings regularly because they say the programs do not present subjects in which they are specially interested. Under present conditions the result can not be otherwise. Therefore when urging a union of our two societies it is necessary to at once suggest an elastic system whereby as need arises new but closely related bodies may be formed on demand.

There are at present in this city two small independent medical societies which, in case of our executing this scheme of centralization of interest, should be invited to attach themselves to the general body by the simple and sole bond of requiring their members to belong to the proposed Academy.

EXECUTIVE FUNCTIONS.

The new Society might well consider some change in the functions of its officers. At present in this Society the President is the sole executive head and upon him rests the greater part of the responsibility for the successful working of the organization. This being the case it is essential for our welfare to elect as President men who will heartily interest themselves in its work and who will not hesitate to sacrifice their own interests for the Society. There are many times, however, when the members feel that it would be a graceful compliment to bestow the presiding function upon a member who has passed the period of chief activity. Under present conditions this can not be done without risking the welfare of the organization. Therefore it is possible that it would be wise to create another office, or to so enlarge some present one, that the business part of the President's duty could be placed on other shoulders. In pursuance of this idea, the New York State Medical Association now employs a lay business manager.

V 3
190

PERMANENCE OF METHODS.

Another valuable feature that should be introduced by such a new organization would be a permanent assistant secretary, paid a small stipend for seeing to the printing and mailing of the programs and other notices. This would ensure permanency of system. Such an assistant Secretary might well be the resident librarian at the Medical Library. The regular Secretary could then keep the minutes and have a general oversight of the work.

A REFERENDUM.

In considering improvements for the future it has occurred to me that perhaps the membership would be better satisfied with the conduct of the Society if in electing officers or in voting on an amendment a referendum were provided for by having ballots sent to every member, so that he can vote by mail. This would ensure to each one his franchise, and not leave the determination of such questions merely to those who happen to be in attendance. This I make as a suggestion, rather than as a recommendation. The same method is in satisfactory operation in a number of non-medical societies. The necessary machinery is simple, and our Society can readily adopt the method if it seems desirable.

NEED TO INCREASE MEMBERSHIP.

Our Society should at once undertake an active and systematic canvass for new members. In this county there are over 800 regular physicians and we in both our present societies include but 265. Many more must be brought into our borders and made welcome. I shall urge our Committee on Growth and Prosperity to district the city, call for volunteer aids, and solicit every possible member. In this connection we should not forget how far ahead of us some other cities are. For instance, the Cincinnati Academy of Medicine now has about 90 more members than our two societies together, not counting our duplicated members. We certainly must not allow Cincinnati to maintain this lead that has followed her concentration of effort into one organization. The New York County Association each year issues a medical directory of the city. This is, of course, of the greatest service in the work of organization and also of enforcing the laws. If we wish, we can just as well have a directory of our own in Cleveland. This would enable us to follow the irregulars, as well as to furnish material for a canvass for new members.

SOCIAL FEATURES.

An unscientific, unpolitical, but still really important part of medical society work remains to be considered. The marked success and value of such a social evening as we spent together last week suggested to all of us that such events should not be so uncommon. The very greatest good surely follows such evenings of social intercourse. Some provision should in the future be made for having assemblies of somewhat similar character once a quarter if possible. Or we might imitate the successful example of the Chamber of Commerce in dividing its meetings into two parts, separated by a twenty-minute interval during which light refreshments are served. On the whole I prefer the quarterly social evening, and I suggest that if it is adopted provision should be made for holding it on some other than a regular meeting night, so as not to reduce the number of scientific meetings in a year.

OUR AIM.

Gentlemen, I see nothing in the way of our undertaking to make Cleveland a model city in respect to its sanitary condition. With our enthusiastic and capable health officer supported by a united profession we can very readily not alone equal the health conditions of other cities but actually take the lead. While I have taken largely of your time in outlining how this may be accomplished, I have left much unsaid that will occur to your minds as following naturally from the perfection of an active medical organization. Further than this we can, by all pulling together, put Cleveland up among the very first rank of cities in respect to the quality of medical work done. We can become a widely known medical center if we will. True, the quantity of our work will fall below that of larger cities, but there is not the least need for this to apply to the quality. Our laboratories, hospitals, colleges, and the workers are now available. A medical journal on the broadest possible foundation is now provided for. A large representative society with subsidiary sections or societies which shall continue more carefully to cultivate the highest type of research and clinical study, and shall lay its results before the world in the journal, will supply the remaining factor necessary to making Cleveland a widely known medical center. In making this our ambition none of us has anything to lose, and it seems to me that every one has something to gain. Let us heartily and in fraternal spirit determine to do this thing. If we do, the deed is done. The time is propitious. I can not imagine that the present opportunity will long remain with us, or that it will soon recur.

Lastly, let us make our medical society as nearly an ideal one as is attainable. Even now our Society is held up as an example of successful society work, but we can do so much more. Above all our other ambitions let us bear in mind that the most essential feature of our organized life must ever be its harmony. We must bring within our fold every available physician in Cleveland and then let us dwell together in the spirit of science, in the spirit of mutual courtesy, in the spirit of true brotherhood, and above all in the spirit of peace.

[N. B. Since this address was delivered both societies have unanimously accepted the principle of union and have appointed committees to arrange details.]

Original Articles.

EXTRA-UTERINE PREGNANCY.

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To those who have looked upon a ruptured tubal pregnancy, I need not attempt to paint in words the picture of this terrible complication. That the surgeon is still so frequently called upon after a tubal pregnancy has ruptured and the patient is exsanguinated, all too forcibly emphasizes the fact that the importance of this subject has not yet been fully grasped by our obstetric teachers. That it is practical to diagnosticate the condition before rupture has been demonstrated so thoroughly that if the medical profession were fully awake to the needs of the hour very few of these cases would ever reach the stage of rupture. In 1892 I made the diagnosis before rupture—which operation verified—of extra-uterine pregnancy, and, since that time, have diagnosed this condition no less than nineteen times before rupture. I have always considered that the diagnosis

could be made, and was unaware that it was not a usual routine among men competent to rank as abdominal surgeons, until a few months since a paper was published upon the subject, in which it was claimed to be something unusual.

As a rule the diagnosis before rupture is easier than it is after the rupture and its accompanying hemorrhage have resulted in peritonitis. The fact is becoming increasingly apparent that extra-uterine pregnancy occurs much more frequently than has been supposed. A few years ago it was considered a very rare experience for one surgeon to see more than two or three cases in as many years. Now there are very few men of any experience in abdominal surgery but that have had more than one series of two or three cases in one week. The importance of this from an obstetric standpoint can not be overestimated. It should lead to an emphatic demand for early and thorough examination of every woman supposed to be pregnant—aye, more, it should lead to such obstetric education as will cause every woman to look with suspicion upon any and every irregularity of menstruation and prompt her to seek competent advice.

This course will result in the diagnosis of practically all cases before rupture, or at least an opportunity for the diagnosis to be made. It might be said here that a reformation in methods of teaching, which will make diagnosis and pathology paramount to operative clinics, would result in greater diagnostic acumen, a healthier view of the responsibilities involved in abdominal surgery, and fewer attempts to mount the ladder of fame with woman's abdomen forming the first round.

It is a sad reflection upon the scientific spirit which pervades our profession to note that in many of the medical colleges, the chairs of obstetrics, gynecology and also that of diseases of children are filled by such material as can be secured regardless of past experience, training, or special preparation. No man should attempt to teach obstetrics who is not competent to make the diagnosis of extra-uterine pregnancy, either before or after rupture, and then he should be able to teach his students how to do the same thing.

A safe rule in the surgery of the uterus is to regard every enlargement of the uterus as suspicious of pregnancy until that is positively known not to exist. I should like to add that I believe an equally safe and valuable rule is to look upon every woman who has the opportunity of pregnancy, as a probable victim of extra-uterine form, and, if she presents the slightest irregularity of menstruation, institute a thorough examination of the tubes. The history of the patient should be carefully and thoroughly taken. This will develop the fact that she has at some time in the past had some form of tubal disease. This has been found to be true in every one of my cases, now numbering thirty-one.

This is one thing upon which there may be some difference of opinion based upon different interpretation of the signs and symptoms of tubal disease, but if close inquiry be made it will be found that the patient has suffered premenstrual pain to a greater or less extent. The menstrual flow has been irregular both as to amount and duration. In some cases she will give a history of a severe attack of pelvic inflammation at some time. There will be a history of leucorrhea, irritable bladder, and in some cases rectal tenesmus. Then will follow an ordinary menstruation, which did not stop in the usual number of days, but there was a "little flow" right along for one, two or three weeks. During this time there has been an increasing feeling of discomfort in the pelvis. There has been irregular but frequent pains through one or other side of pelvis, irritability of bladder and rectum with painful defecation. She is frequently found to be apprehensive of some unexplainable calamity impending. The breasts have developed the usual condition of pregnancy, but in a more rapid manner than usual.

In some cases there has been a long interval between this and the last pregnancy, but this is a very unreliable indication, as I have had two recent cases in women who had given birth to children within eleven months and fourteen days, and thirteen and one-half months respectively. Two years ago I operated upon a woman who was two and one-half months in tubal gestation, whom I had delivered at term only seven months previously.

The examination of a patient with the above symptomatology will reveal the following: 1. The conditions of vagina and uterus found in a normal pregnancy except that the uterus is hypersensitive. 2. To one side or behind the uterus will be found an elastic, sensitive, sometimes but not always, pulsating tumor. 3. There is one evidence found in extra-uterine pregnancy before rupture that I have never been able to find in any other condition; that is a peculiar elastic crepitation, not unlike that elicited by feeling the normal placenta when the membranes have been turned external. It is not the crepitation of blood clot, as is so well known to be present after rupture, but it is absolutely different and distinctive. 4. In nearly all cases the mass will be practically fixed, and, if a careful search be made, the ovary can be found in close proximity to the tumor, but still not a part of it. It has been said that the tumor of extra-uterine pregnancy is "only blood clot;" this is not the case before rupture. At this time the entire tumor consists of the enlarged tube, such placental tissue as can develop from tubal mucosa and the fetus itself. There has as yet been no hemorrhage, hence there could be no blood clot. If the above conditions be found, and, in addition, there is known to have been shreds of membrane in the menstrual discharge, or if this is shown to be so by microscopic examination, the chances of being correct in the diagnosis of extra-uterine pregnancy are about ninety-nine out of every one hundred cases.

I wish here to be understood thoroughly when I say I believe the diagnosis of this condition is practicable in the majority of cases and that it is due to the wives and mothers that we not only emphasize the frequency, importance and danger of the condition, but that we also emphasize that a failure to attempt to make a diagnosis before rupture when the opportunity for investigation is presented, and we do not examine with a view to diagnosis, is a failure totally without excuse, and one which, if the woman should die as a result of rupture and hemorrhage, would place a very heavy moral responsibility upon the shoulders of him who caused the delay by failure to recognize the condition. You may say this is harsh, but it is not so cruel as to stand by and say we must wait until the tube is ruptured and the woman's life in peril from both shock and hemorrhage, before we awake to the possibilities of her danger! Let us at once say, "The diagnosis can be made and we will do it." Then let us teach all our students as well as all others who wish to know, how to do this, and, when that has been done, men will see and feel not only the need of examining each patient carefully, but they will be proud to point to the many whose lives are and ever will be a proof that there is science in diagnosis.

Let us teach, not the technic of some new-fangled modification of some other man's operation, but teach men how to recognize this obstetric condition, and also

teach them that the diagnosis is greater from a life-saving standpoint than is the operation itself. Give the medical world to understand that an "exploratory incision" as a means of diagnosis is in all but very rare cases a course only resorted to by incompetents and cowards. The exploratory incision has and ever will have a proper and necessary place in abdominal surgery, but I am convinced that no other procedure has been so much misused, or so fatal in its results as this. The term would be better eliminated from our literature, if it is to continue, as in the past, to be the means whereby men without training, ability or conscience, shall cover their weakness, incompetence or mercenary characters. It is the duty of those whose work and study have rendered them competent to teach the world that true surgery is conservative, honest, scientific, safe and founded upon correct and accurate ideas of pathology and the conservative powers of nature. The medical profession and the laity have a right to demand of us sound and fearless teaching, thorough preparation, diagnostic acumen, as well as operative dexterity. The latter can not be acquired by all because opportunities for all to operate frequently can not be obtained, but the first three can be and should be the right and possession of every man.

The diagnosis after rupture has taken place will present the same history as already given, except that there has been a severe tearing pain, accompanied or followed by faintness, pallor, rapid pulse and all the other signs of hemorrhage. This sharp pain that has been considered almost an essential part of the case is by no means always so marked. Too much stress has been placed upon this symptom. Abdominal distension is rapid, and unless the patient dies as a direct result of hemorrhage, peritonitis is a very early complication. The vaginal and bimanual examinations are both extremely apt to add to the hemorrhage by displacing the clot, hence great gentleness and caution are necessary. The early occurrence of peritonitis renders the bimanual and vaginal examinations still more unsatisfactory. The tumor formed by the hemorrhage behind or to one side of the uterus is tender, and usually pulsating. If peritonitis be not present, gentle palpation will elicit the crepitation of a blood clot.

The history being as that outlined in diagnosis before rupture, these findings will be enough to determine that we have an extra-uterine pregnancy with which to deal. The choice of route by which to operate is to be determined by two factors: 1, the condition of the patient, and 2, the method in which the individual operator is most dexterous. It must always be borne in mind that these patients are, or have been as a rule, the subjects of tubal disease, hence while the primary object is to remove the extra-uterine pregnancy, an equally important object should be the safety from complications and accidents. It has never yet been my good fortune to see an extra-uterine gestation which was not more or less complicated by intestinal or other adhesions. Before rupture of the tube has occurred these adhesions form the greatest source of danger in the operation. The rapidity and safety with which they can be overcome through an abdominal incision, are in strong contrast with the uncertainty involved in a vaginal operation. After rupture has taken place clots may be found in the renal, or hepatic regions; in fact, in any place in abdominal cavity, even the fetus may be high up, as I have twice found it, once immediately under the transverse colon.

It is necessary to work rapidly and yet the work must be thorough. These objects can best be accomplished through an abdominal incision, i. e., the prompt and efficient control of the hemorrhage, the cleansing of entire peritoneal cavity, and the safe separation of visceral or other adhesions. There is, however, one class of cases in which the hemorrhage has ceased, infection has taken place, followed by suppuration. In these cases the infection is of a very virulent type, and is the chief factor in the case, hence if the mass be low down and easily accessible, it should be incised and emptied through the vagina, no effort being made to separate adhesions or to remove the tube. Simply incise, drain and after the patient shall have recovered from the infection, the adhesions can be treated as the case may require. The idea that we should ever enter upon a vaginal operation which may present conditions requiring us to open the abdomen with haste in order to save our patient's life, seems to me one fraught with many possibilities for evil, and an idea it would be well to abandon.

Our responsibility for the teachings in our papers does not cease when the meetings are over; many men, both young and older, will be influenced more or less by what we here teach, and if I have seemed dogmatic in what I have written it is not from a spirit of dictatorial narrowness, but rather the earnest belief that the statements made are supported by pathology, clinical observation and logical deduction, and the desire to urge upon all who may hear or read what I have written, the importance of careful study and accurate diagnosis of our cases before we begin an operation, then perform the operation best suited to the case, be that abdominal or vaginal.

THE ROLE OF CERTAIN NON-GRANULAR AND GRANULAR SOMATIC CELLS IN INFECTION.

TECHNICS—THE ORIGIN, SIGNIFICANCE AND FATE OF THESE MORPHOLOGIC ELEMENTS.

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It very rarely happens that these cells can be studied with advantage without proper fixation and staining. Indeed, with our present knowledge, it may be said that it is impossible to recognize some of them in the fresh state, and their study in this condition does not, therefore, seem of sufficient importance to take up any of our time on the present occasion.

Whenever we wish to make studies of cells it is always a matter of the highest importance that the tissues be as fresh as possible, since many of the more delicate morphologic constituents of these bodies immediately begin to undergo alteration following death, and this process continues until they undergo complete disintegration. Fortunately for us, however, in this connection it is as a rule the case that we are more particularly concerned with the protoplasmic portions of the cells, and as these do not undergo such rapid changes as those parts that go to make up the nuclei, it is not absolutely essential that the tissues should be so fresh as is necessary where studying the latter-named bodies; therefore, although it is axiomatic that tissues for accurate study should always be fresh, it is not infrequently possible to recognize these various cells even in tissues that have been dead for a considerable period before having been placed in the fixing solution.

It is unfortunately true that those fixing solutions which preserve nuclei best are not those well suited for

studying these cells, inasmuch as they interfere seriously with many microchemic reactions; and as it is upon these reactions that we largely depend to differentiate some of them, it is apparent that such solutions can not be employed for fixation with advantage.

Of the various fixing solutions that may be recommended for the study of these cells those mixtures containing corrosive sublimate are to be most highly recommended. The reason for this lies in the fact that most of the microchemic reactions which are of value in their study are obtained with aniline dyes belonging to the thionin group, and these stains possess the peculiar property of uniting with mercuric salts, producing compounds which are more brilliant in color than the dyes originally employed, and also that these newly formed substances cling to the tissues with much greater tenacity. It does not appear to be a matter of great importance which of the corrosive sublimate solutions are employed. Recently I have been in the habit of using the mixture of Bensley, which consists of equal parts of a saturated solution of bichlorid of mercury in alcohol and a 1 per cent. solution of bichromate of potassium in water. The only fault with this solution is that it has to be made fresh each time and can not be used over again. The fixation produced by it is very fine, and in addition to leaving the tissues in such a condition that the various microchemic reactions may be easily obtained, the several morphologic elements of the cells are preserved with great faithfulness. Zenker's solution, Foa's solution, and the various other solutions of bichlorid of mercury may be also employed, but for some reason that I can not explain those fixing fluids containing bichromate of potassium seem to act best.

Alcohol may be also used for hardening the tissues, but as it is impossible to obtain the brilliant microchemic reactions after its use that we get following corrosive sublimate, and as the morphologic constituents of the tissues are not so well preserved, it does not seem that there is any good reason for employing this reagent in a routine way for hardening.

Either celloidin or paraffin may be used for embedding the tissues, but on account of the fact that paraffin is much more convenient, that the tissues can be preserved in it indefinitely without injury, and, more than all, for the reason that much thinner sections can be cut when it is employed, it should always be given preference.

For staining the tissues various methods will have to be employed, depending upon what part of the cell it is especially desirable to investigate. When we wish to study the nuclei the various stains that are obtained from hematoxylin are to be particularly recommended—especially is this the case if the tissues be fixed in corrosive sublimate, for this substance and the hematoxylin derivations unite with each other with great readiness, forming dark purple compounds which are even more brilliant than those produced by this staining reagent alone. The iron hematoxylin methods are also of much service—that of Benda being especially convenient. When studying the microchemic peculiarities of these cells the aniline stains belonging to the thionin group are absolutely necessary. It is rather singular that microscopists, following the lead of Unna, have apparently without question assumed that alkaline solutions of these dyes are necessary for obtaining the various microchemic reactions which they are capable of producing, but as a matter of fact the staining effects are in every way as good when neutral solutions of these dyes are used. Thionin, methylene blue, and toluidin blue will either of them, when employed in a simpe aqueous solution, give these reactions in a perfectly characteristic way, but if they be dissolved in a 4 or 5 per cent. solution of carbolic acid in water, the staining effect is somewhat more brilliant and is produced with greater rapidity. After corrosive sublimate fixation it requires from ten to fifteen minutes for staining. Specimens from alcohol should be always washed in water before being placed in the staining solution, as a dirty precipitate otherwise often occurs; for the same reason a like precaution should be taken in cases where alcoholic solutions are employed to differentiate the stain. After rinsing in water the specimens should be washed in a weak acid solution of alcohol, or, what I think somewhat better, Unna's glycerin-ether mixture diluted 5 to 10 times with water; differentiation by either of these methods is brought about in a few minutes. The tissues are then thoroughly washed in alcohol, and cleared with cedar-wood oil, xylol, or chloroform. If the various procedures be carried out in the proper manner the chromatin of the nuclei of all cells is stained in varying shades of blue, depending upon the dye that is used; the granules in the so-called plasma cells (really fibroblasts) are colored a dark, purplish tint, and the granules in the mast cells assume a bright cherry-red color.

Eosin as a counter stain should be employed after hematein, or following toluidin-blue when it is desired to bring out the peculiarities of the protoplasm of eosinophilic cells and polymorphonuclear leucocytes.

As regards the origin, fate and significance of these morphologic elements, I thoroughly appreciate that we as yet possess little absolute knowledge; still the facts in our possession would seem to justify certain conclusions concerning them which make their further study a matter of great interest.

Plasma Cells.—In the light of more recent investigations the view first advanced by their discoverer, Unna, that these cells are produced from connective tissue by a process of direct division does not appear to be tenable, but, as was first maintained by von Marschalko,[1] it seems that there is little doubt that they are directly derived from lymphoid cells by an increase in their protoplasm, and by the formation around their nuclei of small, basophilic masses that are undoubtedly closely related to the prozymogens which have been discovered in the secreting epithelial cells of glandular organs, and, like them, probably the result of the migration of certain parts of the nuclei into the surrounding protoplasm. This brings up the exceedingly interesting question as to how the lymphoid cells that are so abundantly present in and around old inflamed areas reach these situations. True, it is maintained by many that these cells possess the power of ameboid movement, and hence it is assumed that they are capable of passing through the walls of the blood vessels just as do the polymorphonuclear leucocytes. It can not be denied that this may be true, but it does not appear to me altogether likely for the following reasons: In the first place in those inflammatory conditions where great numbers of polymorphonuclear leucocytes collect in the diseased parts there is never, in my experience, the proportion of lymphoid cells intermingled that occur in the blood. And in the second place, nothing is more familiar to every pathologist than the fact that in mild inflammatory conditions of a chronic kind enormous numbers of lymphoid cells may

1. Von Marschalko: Ueber die sog. Plasmazellen; ein beitrag zur Kenntniss der entzuendlichen Infiltrationszellen, Arch. f. Dermat. u. Syphilis, Bd. xxx, 1895; and also in Centralbl. f. Path. u. path Anat., Bd. x, S. 841.

be massed together without any of the polymorphonuclear leucocytes being present at all—which certainly would not be the case if they all passed directly from the blood vessels. Of course it is conceivable that the different chemotactic substances may each have the power of attracting only one kind of leucocyte, but so far as I am aware we have no knowledge bearing directly upon the matter. For some years it has appeared to me that the explanation of these peculiar facts might lie in the possibility that the lymphoid cells reach the diseased parts by means of the lymphatics, and on account of the damaged condition of the walls of the lymph vessels, and the greater amount of pressure in the diseased parts the cells do not pass through, but accumulate in and around these areas. I have made a number of experiments in the attempt to prove this, but have not as yet reached any satisfactory results.

As regards the fate of these plasma cells it seems highly probable that they are the real fibroblasts—the collagenous tissue being formed by a process of secretion around their periphery. After a certain amount of fibrous tissue has been formed around them, they seem to be what are commonly, but erroneously, called fibroblasts. As cicatricial tissue develops these cells undergo retrogressive changes, break up, and the resulting debris is carried away by means of the lymphatics or by the phagocytes. This, however, does not always seem to be the fate of these cells, since a certain number of them become branched, their protoplasm loses its basophilic affinities, and the cells remain in the parts as fixed connective tissue cells. Under certain conditions it is not improbable that other alterations may occur in the cells, as a result of which they become hyaline, and, as von Marschalko[2] has recently claimed, in this condition may become the so-called cancer parasites of certain authors.

Concerning the significance of these cells, I should personally look upon them as always indicating the beginning formation of cicatricial tissue.

Perhaps the easiest and simplest method of demonstrating them is to stain in carbol-toluidin-blue for from 10 to 15 minutes, and to afterwards differentiate in Unna's glycerin-ether mixture. The cells may be recognized by the fact that they are rather large, and that there are numerous fine granules within them that are colored a very intense slaty blue by the dye, and that the cells are not uncommonly of a somewhat squarish form.

Endothelial Cells.—Concerning the new formation of these cells in disease, I must confess to complete ignorance. It appears, however, not improbable that they are never produced from other cellular constituents of the body, but, like epithelial cells—with which they appear to be identical—are only reproduced from pre-existing cells of their kind.

The endothelial cells may be easily demonstrated by any of the ordinary methods of staining.

Eosinophilic Cells.—The eosinophile cells are generally regarded as being old polymorphonuclear leucocytes. As regards the fate of these cells in infection, I possess no definite knowledge, but presume that when the infection is of a virulent kind they, along with the others present in the diseased area, undergo necrotic changes. I am not aware that their presence is of any significance in connection with infections.

These cells may be readily demonstrated by staining with hematoxylin and eosin, and although more elaborate methods may be employed, the results do not appear to warrant the extra amount of trouble necessary in order to use them.

Mast Cells.—In the light of present knowledge it seems fairly certain that there are several different kinds of cells that have received this common appellation.

1. The mast cells of Ehrlich. These cells are found especially in the submucous tissues of the body, but may be found in any of the connective tissues except those of the brain, spinal cord and meninges; they are rather large, very irregularly shaped cells, and doubtless have the power of ameboid movement. They never contain more than one nucleus, which is quite homogeneous, and it takes basic dyes feebly. The protoplasm of these cells contains many large granules that give characteristic reactions with certain dyes.

2. The mast cell of the lymphatics. These cells are found in the lymph nodes of the lower animals, and under certain conditions in those of man, and differ from the mast cells just described in that they are smaller, and that they are, as a rule, more rounded in outline, that their nuclei are generally nearer the centers of the cells, and that their protoplasm contains but few granules.

3. The mast cell of the blood. These cells differ only from the cells just described in that their nuclei are oftentimes lobulated; when this is not the case the two cells appear identical.

4. The muscle-fiber mast cell. Around chronic lesions the protoplasm of involuntary muscle fibers sometimes undergo alterations as a result of which mast cell granules are formed. The change does not interfere with the morphologic peculiarities of the fiber in which the process occurs.

As I pointed out some time ago,[3] the granules that are present within these cells stain with Mayer's muchematein, as well as with other specific stains for mucin, and they therefore appear to be made up of mucin or some substance very closely related to it. I have suggested that the name *mucinoblast* should be substituted for the entirely misleading word, mast cell.

As regards the origin of the first three of these cells we are still, more or less, in the dark. It would appear not improbable that the mast cell of Ehrlich is derived from either the large phagocyte of Metchnikoff, or from cells that are nearly related to them, though there is, so far as I am aware, no definite proof of this. Those mast cells occurring in the lymph nodes appear to have been derived from hyaline cells that themselves very closely resemble the large phagocytes just referred to, and the mast cell of the blood seems undoubtedly to take its origin from the large hyaline cells that are present to a limited extent in this fluid.

There can be no question that these cells, both in health and in disease, in the course of time undergo degenerative changes, break up and entirely disappear; this process is particularly active under the latter condition. When the large intestines of dogs are subjected to some powerful irritants the mast cells, even deep down in the walls of the gut, disappear with remarkable rapidity, and there can be no doubt that under these circumstances they break up, and that their granules undergo solution. As the result of recent investigations, I am strongly disposed to think that the granules from these mast cells sometimes pass directly through the basement membranes, and become included in the bodies of the mucin-bearing epithelial cells; the granules then become united with the constituents of the protoplasm of the

2. Von Marschalko: Die Plasmazellen im Rhinoscleromgewebe, etc. Arch. f. Derm. u. Syph., 1900, Bd., 54, Heft 2 u. 3.

3. Harris: Histology and Microchemic Reactions of Some Cells to Aniline Dyes, Phil. Med. Jour., April 7, 1900.

cells, and give rise to the substance that we call mucin. Concerning the mechanism by which this is brought about, I hope to be able to speak in a future communication.

Inasmuch as these cells have a tendency to disappear in acute inflammatory conditions their absence under these circumstances is of more or less significance, but in chronic processes they not infrequently considerably increase in number, and their presence under these circumstances may be suggestive of the character of the condition. This peculiarity seems to be of especial importance in differentiating so-called inflammatory conditions from sarcoma.

There are many methods of demonstrating these cells, but perhaps the most satisfactory is to stain for a short time in carbol-toluidin-blue, and afterwards to differentiate in Unna's glycerin-ether mixture. These cells after being stained in this way may be always readily differentiated by the fact that the granules contained within them take on a peculiar cherry-red tint, to which reference has already been made in this paper. As has been before remarked, they stain intensely in Mayer's muchematein.

THE CORRECTION OF DEFLECTIONS OF THE NASAL SEPTUM WITH A MINIMUM OF TRAUMATISM.*

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CHICAGO.

It is not my purpose to describe a new operation for the correction of deflections of the nasal septum, but to give my experience with the methods that I prefer and to mention the additions to their technique and instrumentarium suggested to me by their use. These methods will also be contrasted with the type of another class of operations that has become popular with many, to the exclusion of other procedures. I refer to the straightening of deflections in the way described by M. J. Asch.

While the means advocated in this paper inflict a minimum of traumatism on the nasal interior, the operation of Asch is accompanied by an amount of force and injury out of all proportion to the resistance of the frail partition that is to be straightened. Asch's procedure is intended to accomplish by force under narcosis, in a few minutes, without the aid of sight, a result which can be attained only by the use of much more time and with the infliction of some pain by rhinoscopic methods. With these, however, the end is gained with the neatness, deftness, exactness and adaptability to varying conditions only possible when an operation is done with the help of vision, while in operations of the Asch type, no consideration can be taken of the endless variety in shape and extent of septal deflections.

In addition to the large proportion of quite atypical deformities, those that I have seen group themselves mainly into two general types of angular and bowed deflections. The angular variety is more apt to be limited in my experience to the cartilaginous septum than the bowed. Often the angle is far forward so that the deflection may be seen by lifting the ala of the nostril. Very frequently it involves the osteo-cartilaginous junction, so that the receding posterior plane of the angle is more or less bony. While the anterior surface of the angle is apt to jut out abruptly, the posterior or hidden surface generally slopes gently back towards the nasopharynx so that it forms the longer limb of the angle and causes a general narrowing of the nasal passage along the bony part of the septum, and even where the angular deformity is wholly within the cartilaginous septum I usually find that the bony portion behind it bends into the narrowed naris, slightly, but enough to obstruct breathing noticeably. The ridge at the summit of the angle, or corner of the angular deflection, usually has a vertical direction or extends upward and backward in the direction of the upper border of the vomer.

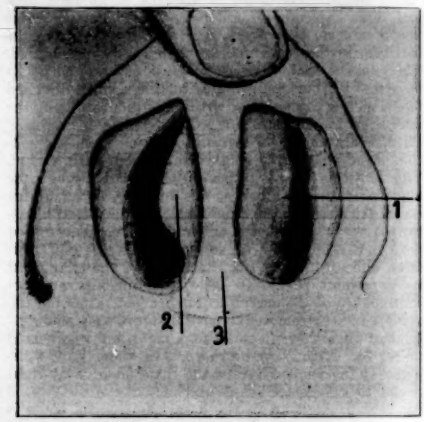
The curved or bowed deflection is quite common and often extreme, so that its anterior portion may be visible without a reflector, protruding like a red tumor into the nostril. The bowed deflection, as I have seen it, almost invariably involves the bony septum, often for nearly its entire extent. With both angular and bowed deflections, but especially the latter, the anterior lower angle of the quadrangular cartilage is often found dislocated from the superior maxillary crest and seen to project across the nostril containing the septal concavity. The concavity of both angular and bowed deflections presents a certain uniformity of shape not possessed by the convexity, which is often varied by spurs, crests and thickenings. The concavity in both varieties usually appears as a deep pocket whose convex walls unite at the bottom at an angle, often acute, lying opposite the point of greatest convexity. The bowed deflections are more apt to be thin-walled than the angular ones, and the latter are more prone to be associated with crests and thickenings. Often, however, what appears to be a solid spur or crest proves on measurement to be a hollow prominence. Some deflections are so exceedingly thin that the cartilage is of the thickness of an egg-shell. The cartilaginous septum, as I have measured it, is commonly one-eighth to three-sixteenths of an inch in thickness; the cartilage without the mucosa in most cases is from one-sixteenth to one-eighth of an inch thick, but may attain a thickness of five-sixteenths of an inch in some cases.

From the foregoing it is evident that septal deflections vary so greatly in shape, thickness and extent that operations for their correction can not well be of an unvarying, typical kind as is the Asch procedure. The operator who would accomplish his end with the least injury must be ingenious, make a different plan of operation for almost every case and find new ways for overcoming unexpected difficulties as he goes on. It is especially the bony septum that presents these difficulties and Mackenzie's statistics show how often this part of the septum is involved in the deflection; in fact a very moderate experience will demonstrate it to any one. Asch's operation, as admitted by those who practice it, is not well fitted to cope with bony deflections. It is a procedure largely depending for its results on the use of blunt force, producing fractures and contusions, and it is my experience that the use of blunt force in the nasal interior, as elsewhere in the body, creates far more reaction, devitalizes the tissues more and invites infection more than does the use of cutting methods. I advocate, therefore, as far as possible, resection of the redundant cartilaginous septum in preference to forcing it to assume a straight line by means of infractions after incisions. Resection is much more an operation of precision than fracture. The latter will not always occur where it is desired, will extend too far or occur in the wrong place, and involves the temptation to use violence to overcome the resiliency of the septum.

To E. F. Ingals belongs the credit of having origin-

* Read at the meeting of the Chicago Laryngological and Climatological Society, Jan. 21, 1902.

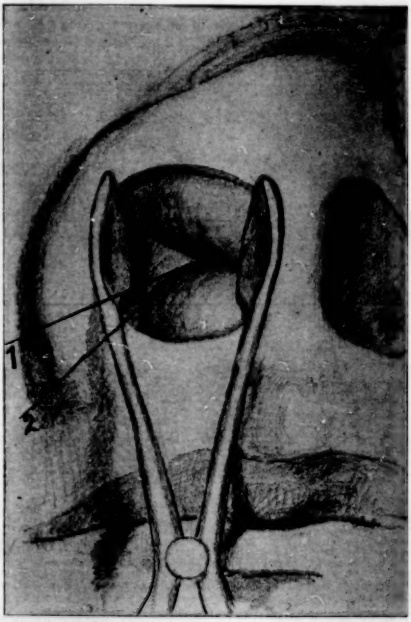
ated in 1882 the type of operation designed to correct the septal deformity by complete removal of a portion of the quadrangular cartilage, the so-called resection of the septum, or window resection, as it is named by Krieg. Four years later Krieg reported his "Fenster-resektion," which differed from that of Ingals in the manner of the incision in the mucous membrane and in that he removed the entire deflected cartilage and not merely a triangular portion in front. Boenninghaus followed with an admirable article in which he laid stress upon continuing the resection into the vomer and perpendicular plate if necessary, taking away not merely the bent cartilage but the deflected bone as well. Without knowledge of Krieg's or Boenninghaus' operations I began in May, 1901, to remove by resection completely, in such cases as seemed suitable, the cartilaginous portion of the deflection as far as it extended or until the bone was reached. Consultation of the literature on the subject has shown me that my method is not original but that Krieg had continued the Ingals operation backward long before I had thought of doing so. Neither



Bowed deflection of the septum seen from in front. The tip of the nose is raised by the thumb of the operator. 1. Convexity of deflection in left naris. 2. Dislocated anterior inferior angle of the quadrangular cartilage lying across the entrance to the right nostril. 3. Cutaneous septum.

he nor Boenninghaus give Ingals the credit that is due him, probably from lack of attention to American literature on the subject. Among my own cases I have found, so far, 15 suitable for the resection operation, and have corrected the deflections by this method. Krieg reports 130, Boenninghaus 19 cases.

It naturally suggests itself that the extensive removal of cartilage or bone from between the mucous layers of the septum will deprive the external nose of support and that it will sink in. This would be the case if the nasal septum were a supporting wall for the external nose instead of a mere division between the nares. The intrinsic cartilages of the external nose, the nasal bones and the anterior edge of the quadrangular cartilage maintain the form of the nose even if the rest of the septum be gone. Cases are constantly presenting themselves where loss of all of the quadrangular cartilage and often of large parts of the bony septum as well, as the result of disease, is not accompanied by deformity of the external nose. Where this sinks in, it is because cicatricial retraction draws the facial nose back into the nasal interior. The only influence on the shape of the external nose that I have seen result from removal of the deflected cartilage is bringing the nose into the median line when it is twisted to one or the other side, an effect very agreeable to the patient. I have never seen tilting upward of the tip of the nose or sinking in of its bridge. As an example of the fact that this does not need the support of the septal cartilage I refer to the custom of most operators to excise the anterior lower portion of the quadrangular cartilage when this is dislocated from the superior maxillary crest. It is quite evident in these cases that the cartilaginous external nose derives no support from the septum and no surgeon fears injury to the nasal profile. Neither



Septal deflection seen from right nostril, showing concavity of the deflection. 1. Angular pocket at bottom of concavity of deflection. 2. Inferior turbinated body. 3. Nasal speculum.

Boenninghaus nor Krieg speak of any such consequence to their numerous operations in which they cut away all of the cartilage or bone involved in the deflection, and Boenninghaus denies the possibility of deformity. Boenninghaus reports several cases in which he removed the entire quadrangular cartilage and in some cases extensive portions of the vomer and perpendicular plate as well.

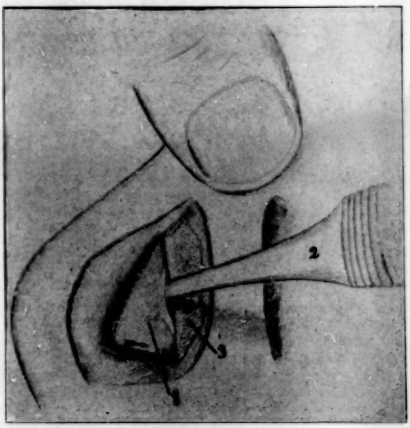
While the supporting function of the septum may be therefore disregarded, its physiologically important mucosa must be respected and perforations are to be avoided if possible. Boenninghaus says that the mucosa will regenerate in time a new cartilaginous and bony septum from the perichondrium and periosteum which

it contains. In two of my cases examined three months after operation, I found partial reformation of cartilage in one and no attempt at its replacements in the other.

I do not continue my resection into the bony wall as do Krieg and Boenninghaus, who cut away large portions of the vomer or perpendicular plate if deflected, but prefer to fracture the bony septum with Roe's forceps after preliminary chiseling or trephining. This previous weakening of the bony septum in the directions desired limits the force required for the fracture to the least degree and indicates its direction.

The methods of operation to be described are designed for the typical deflections mentioned. as it would be impossible to detail the variations made necessary by divergences from the usual types.

For the local anesthesia I employ powdered cocain. This I apply with a small, moist swab to both sides of the region of the septum to be operated on. It produces an intense insensibility, but so limited in area that



Right nostril showing angular deflection with mucous flap reflected forward. The triangle of cartilage has been outlined with the cartilage knife, and is being raised at its anterior border with Ingals' spud, which is lifting off the mucous membrane in the opposite nostril. The dotted line indicates cut through cartilage. The arrow shows direction of cut along base of triangle underneath bottom of deflection and therefore for the most part invisible. 1. Triangle of cartilage. 2. Ingals' spud. 3. Reflected flap of mucosa.

I have never seen cocain intoxication, as the amount of the drug used is small. An advantage of cocain in the dry state is that it contains none of the poisonous products of decomposition of the drug liable to occur in solutions. In the nasal vestibule, where the septum is covered with pavement epithelium, the sensitiveness is not entirely removed by cocain, as absorption is deficient, but back of this region the anesthesia is so complete that even children permit excision of large portions of the cartilage without complaint. The bony portions of the septum, however, remain much more sensitive, so that chiseling, trephining and fracturing cause a good deal of pain at times, but nothing that may not be endured with moderate fortitude, and no more than is inflicted in sawing away an exostosis. As long as the operation is confined to the cartilage the chief annoyance felt by the patient is due to holding the nostril open with the speculum, so that his patience is taxed rather than his courage in enduring pain.

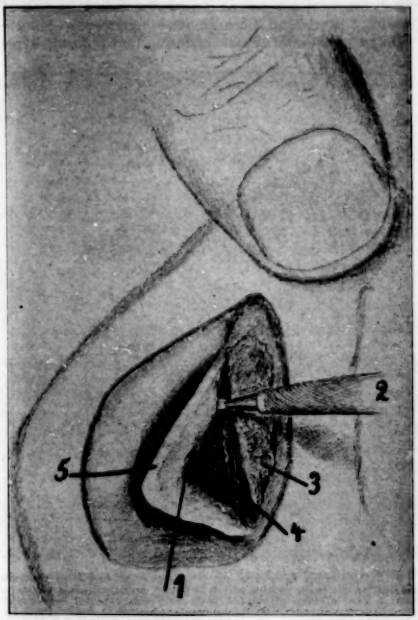
Adrenalin applied in the strength of 1 to 1000 will often, especially in young subjects, make the operation practically bloodless and so shorten it greatly, as the blood does not interfere with vision in the usual manner. In other cases adrenalin has no appreciable effect on the bleeding. A fresh application of cocain has, however, never failed in my experience to act as a prompt but temporary hemostatic, so that I employ it to permit progress of the operation when the bleeding is great enough to interfere with a view of the field.

Before operating, the usual precautions as to asepsis are employed and a large number of swabs are placed on applicators to be used to wipe away blood, as even a drop of this will interfere with a view of the narrow cavity in which the work is done.

Taking, for example, an angular deflection far forward, an incision is made down the crest of the angle and forward at its base so as to outline a triangular flap of mucosa. This incision is made with a small knife whose blade is bent on the flat on the shank at an obtuse angle. The blade is one-half of an inch long and three-sixteenths of an inch wide. The triangular flap of mucosa thus outlined is pushed away from the cartilage in the usual manner with Ingals' nasal spud. The exposed triangle of cartilage is cut around at its borders with the small Ingals cartilage knife designed to cut merely through the cartilage without injuring the mucosa of the opposite side. The triangle of cartilage, after separation at its margins, is freed from the mucous membrane of the neighboring nostril with a spud. This is accomplished by passing the spud through the incision in the cartilage at the anterior border of the isolated triangle of cartilage, which is seized with rat-tooth forceps and finally removed. When the angular deflection extends far up towards the nasal roof it is often difficult to sever the attachment of the triangle at its uppermost part. To meet this difficulty and for continuance of the operation further back after the triangle has been removed I have designed two modifications of Ingals' cartilage knife, a right and a left hand knife, for cutting up or down. In these knives the plane of the flat surface of the little blade is at right angles to its slender shank and may therefore be used far back or high up in the nasal cavity. Its blade is only one-eighth of an inch long and if the cartilage be thicker than this it may be made to sever it by pressing the knife into its substance while making repeated cuts. In all but very rare cases it will sever the cartilage at the first incision. I have never made perforations with these knives and do not find it necessary to keep the finger in the opposite naris to feel if the blade be cutting through as Boenninghaus recommends for his incisions, but find this proceeding of value to support the septal cartilage so that the knife can enter it.

Up to the removal of the triangle of cartilage the operation has been a typical Ingals one. Its continuance, as far as the cartilage is concerned, is practically the method of Krieg. The removal of the triangle of cartilage leaves exposed to view the inner surface of the mucosa of the opposite side of the septum. At the posterior border of this raw area the cut edge of the septal cartilage presents as a snow-white vertical narrow surface. The spud or a slender spatula is inserted between the outer edge of this surface and the mucosa of the convex side which is separated from the cartilage as far back as it can be reached. While the cutis-like mucous membrane of the anterior one-quarter of the cartilaginous septum is difficult to undermine with the

spud and has to be dissected away from its attachment, the mucosa of the parts of the septum back of this may be peeled from the underlying bone or cartilage with perfect ease. It is thin and delicate and not easy to see. The mucous membrane of the opposite or concave side of the deflection is next separated in a similar way, great care being taken not to perforate it. When this step is completed the cartilage or cartilage and bone of the posterior limb of the angle of deflection is bare of mucous membrane on both sides as far back as can be reached and if it be moderate in length, in its entirety. The next step is removal of the bared cartilage. For this purpose the little cartilage knives with right-angled attachment of blades mentioned are used. According as the right or left nostril is the field of operation one or the other is introduced between the mucosa of the opposite naris and the septal cartilage and pushed back as far back as the mucous membrane has been separated from its base. The point is then turned outward and made to pierce the cartilage. Next the blade is swept around the base of the cartilaginous flap to be removed, cutting it through. Usually the cartilage knife will catch the loose piece like a hook and bring it away. If this does not occur the fragment may be twisted off from its remaining adherence with forceps. Another white narrow surface, the edge of the cut cartilage, will now be in view and if the deflection be not entirely removed more of the mucosa should be peeled from both sides of it farther back, in the manner described, and another piece of cartilage be removed. Though the work gets more difficult the further back progress is made, it is nevertheless not a hard matter to dissect out the cartilage from between the mucous layers as far back as the bony septum. If the deflection has been entirely taken out in the manner described the operation is ended and the nose ready for tamponing, but if the posterior surface of the deflection extend back into the bone I begin the use of chisels as a preparation for the Roe forceps. Doubtless, in some cases the method of Krieg and Boenninghaus of removal of the bone by fragments with cutting forceps is preferable, but in my cases I have usually found it so difficult to work at this great depth within the naris that other and less tedious methods seemed preferable. The chisels I use are those employed by dentists for the cutting of enamel; any narrow-bladed one will do. The chisel is applied to the white edge of the cartilaginous strip remaining in front of the bony part of the deflection and pushed back within the cartilage until it rests firmly on the anterior edge of the bone, which is usually the vomer. It is then driven longitudinally into the bone as far back as needed. The bony septum is thus easily fissured in such directions as seems desirable. It is a matter of no consequence if the chisel pierce the mucosa of the opposite side, as slits in the septum back of the denuded area of mucous membrane of the opposite nostril do not cause permanent perforations. It is easy, however, to keep the blade of the chisel from going through in most cases. When chiseling is complete I apply the largest blade of the Roe forceps that will enter the naris and fracture the bony deflection in the manner described by Roe. The use of this instrument without preliminary fissuring or trephining I have not found satisfactory. I have never succeeded in correcting cartilaginous deflections with it and have found that as soon as the forceps was removed the cartilage sprang back into its old place. For bony deflections, however, after preliminary weakening as mentioned it is in most cases an entirely satisfactory instrument. It has been my experience that some elastic septa in young subjects can not be made to break sufficiently with Roe's forceps to become straight, or that they are too resilient to break at all when it is used. In these cases the resection may be carried as far back as possible and I have found Ingals' nasal punch forceps, which makes several parallel slits through the septum, a useful instrument to destroy the resiliency. Where the bony septum is thick and massive, as it is very apt to be at the base instead of merely weakening it with the chisel a part of its substance may be removed with this instrument or with the trephine, several cores being taken out after the manner of Ingals. Where the septum is thin and elastic it is hard to apply the trephine so that it will follow the bone as the anterior edge of this is so movable in these cases



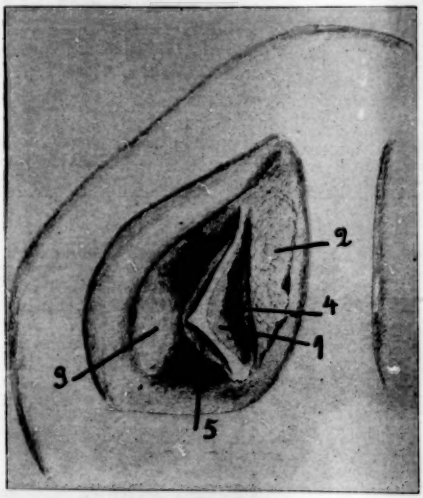
Later stage of operation upon deflection shown in Fig. 3. The triangle of cartilage has been removed and shows the cut edge of the septal cartilage. 1. Hollow of deflection exposed by peeling away of the mucous membrane of the opposite nostril. 2. Freer's angular cartilage knife making downward incision at posterior part of bared deflection. 4. Inner surface of intact mucosa of opposite nostril which has been separated from the concavity of the deflection with Ingals' spud. 5. Cut edge of quadrangular cartilage.

that it slips away as soon as the trephine begins to rotate. In the majority of cases perfect success may be attained with the chisel and Roe's forceps.

Sometimes a crest or spur in the opposite nostril makes the application of this instrument impossible or unsatisfactory. The sawing, chiseling or trephining away of these obstructions, in addition to the procedures mentioned, is a matter of course and should be done at the same time.

The operation is not complete until the patient can breathe perfectly through the previously obstructed nostril without the use of pressure to force the septum to-

wards the opposite naris. No tubes are needed to maintain the correction as, under the conditions established, the deformity can not recur, because the cartilaginous deflection has either been removed bodily or what little remains of it at the posterior part is held in proper position by the infracted bony portion of the septum, which shows no tendency to spring back into its old position after being broken. The after-treatment consists in packing the naris after the manner of Ingals with a long strip of lint. This it is my custom to impregnate with powdered bismuth subnitrate, as I have found that a tampon filled with this antiseptic will remain odorless and fresh for as long as ten days in the nasal cavity. Whether it would stay so longer I have not tested, but have not so far found a bismuth tampon putrid when removed. The object of tamponing is to avoid secondary hemorrhage and to make the flaps of mucous membrane apply themselves so that they will heal by primary union. Krieg and Boenninghaus remove the reflected mucosa of the convex side, claiming that it forms hypertrophic prominences later. This has not been my experience if primary union can be obtained and this results almost invariably, shortening considerably the time of healing. Previously to introducing the lint strip the flaps are neatly applied and protected from displacement during the tamponing by placing against the wound surface one of Ingals' metal guards. The tampon is removed on the fourth or fifth day and not replaced. To avoid crusting during healing, the patient is directed to insert daily into his nostril a 2 per cent. ointment of salicylic acid in lanolin and vaselin equal parts. A spray of normal salt solution is also employed by him.



Still later stage of operation. The deflection has been removed all but its posterior portion which is partly cartilaginous and partly bony. The inferior turbinated body has been exposed to view by removal of deflection. 1. Remains of deflection. 2. Reflected anterior flap of mucosa. 3. Inferior turbinated body. 4. Mucous membrane of opposite nostril. 5. Separated mucous membrane of convex side of deflection, lying loose in naris.

The patients are not directed to go to bed but usually go about their business in from one to three days. They do not need iced sprays or cold applications to the external nose as after the Asch operation. They do not have to endure the annoyance of a tube for weeks. The operation is not as Emil Mayer says of the Asch, "an operation of magnitude" as far as the traumatism is concerned. I can recall no case in which septic symptoms or suppuration followed it.

Perforations of small size are not always avoidable and are generally about one-quarter of an inch in diameter. Boenninghaus states that he has not seen the irritation and crusting supposed to be due to them. Neither have I found these conditions after healing is complete though the perforation may have occurred far forward. A mere slit in the mucosa of the opposite nostril after the cartilage has been removed will give rise to a perforation, as during healing its borders retract, but a perforation of this kind will have normal mucous membrane to line its edges; hence it will not crust, while a perforation in the cartilage will have a rim of this substance from which the mucosa has shrunk away, and which will therefore be covered by cicatricial tissue not possessing the normal epithelial surface and hence liable to give lodgment to scabs. This, I think, accounts for the absence of crusts when the perforation has been made through mucous membrane from which the cartilage has been detached. During the first two to eight weeks after the operation, until the epithelial surface has become normal again, there is always a tendency to drying of secretions in the nostril which has been operated on.

The time required to complete the operation described is from one-half to two hours, seldom longer than one hour. The reason for its lengthiness is the accuracy of vision required. A drop of blood may obscure the minute field of operation so that much time is used in swabbing the wound dry. Since the introduction of adrenalin, in the majority of cases the proceeding is practically bloodless and hence much more speedy.

Chloroform may be used for the employment of the Roe forceps but only in one case have I found it needed. The anesthesia must be complete, as in half narcosis the patient struggles against the introduction of the instrument.

When children are old enough to sit still during the operation it may be performed upon them as well as upon adults, as the resection is generally unusually easy in their case because the mucosa separates with great readiness from the cartilage, and this extends further back into the naris before bone is reached. It is not well, however, to attempt the operation unless the child has passed his tenth year, as before this time his patience can not be relied upon.

Fainting during the operation has rarely occurred in my practice and then only in the beginning of the procedure. No patient has actually swooned but some have felt so giddy and weak that they had to lie down for a time before the operation could be proceeded with. Faintness seemed to me to be due more to fear than any other cause, for when the patient had recovered from his weakness and the resection was well under way, this class of patients endured it as well as any and the fainting fit was rarely repeated. If the tendency to syncope in these cases were due to cocain intoxication it would not be so readily recovered from and would be repeated after each renewed application of the drug. This does not occur.

The hemorrhage, even without the use of adrenalin, is usually confined to the soaking of about ten to twenty cotton swabs with blood. When the correction involves

the bony part of the septum the bleeding is greater than when it is confined to the cartilage, but is never a noteworthy feature. Nevertheless, a tampon should always be inserted at the end of the operation as secondary hemorrhage may supervene some hours after its completion and it seems to me that the use of adrenalin predisposes to this complication.

Sloughing of the exposed mucous membrane of the opposite naris has never occurred in my experience. Pain after the removal of cartilaginous deviations is insignificant, but infractions of the bone create some painful reaction for a day or two, though never enough to make morphin necessary.

One of Freer's angular cartilage knives. 1. Blade of knife attached to shank at angle on the flat. 2. Cutting edge of blade.

The breathing through the nostril that has been operated on is freer immediately after the operation than for some weeks afterward, as congestion and swelling of the mucosa of the opened naris and a certain amount of provisional callus growing on wounded bone and cartilage need time to be absorbed. After two months or more the nostril becomes as open as right after the operation.

In contrast to the method described, the operation of Asch represents a departure from the more skilful procedures of rhinology and a return to those of the general surgeon not having special practice in visual operations within the nasal cavity. I have referred to Asch's

Ingals' submucous cartilage knife. (One-half size.)

Freer's flat angular knife for incision of mucous membrane of the nasal septum. (One-half size.)

operation as one involving the use of force. As examples of the results of this I refer to two cases reported by Stucky. Both of these had been operated upon by experienced operators in the manner of Asch. In the first case the operation caused a fracture of the lower turbinal closing the lower meatus and a fracture of the middle turbinal forcing this against the septum. Almost entire removal of the lower turbinal and turbinectomy of the middle were needed to restore the patient's health. Much granulation tissue had to be curetted from the lower meatus. In the second case two weeks after the operation the lower and middle turbinal showed plainly the defects of traumatism. That the

Chisel for bony septum.

results of the Asch operation may be even more serious is shown by the case reported by Robert Levy in which fatal sepsis with thrombus of the posterior cerebral artery and endocarditis and pericarditis followed an Asch operation. Though Emil Mayer in commenting on this case states that sepsis may follow almost any rhinological operation, the danger of this complication is certainly greatly increased by forcible manipulations within the nose such as characterize the Asch method. A case has come to my notice in which suppuration of both sphenoidal sinuses was a sequel to an Asch operation. The surgeon was one of extraordinary experience and skill and one to whom the procedure was thoroughly familiar. The mode of infection in this case is obscure, but it seems possible that as a result of fracture, a fissure in the perpendicular plate entered the septum of the sinuses and caused a double infection. These remote parts of the nose would be quite out of danger of injury from the localized fracture produced by the Roe forceps.

The severity of the traumatism induced by the Asch method is emphasized by the need of keeping the patient in bed for three days and the iced sprays and cold applications used in the after-treatment.

That the Asch operation is designed especially for operations on the cartilaginous septum is admitted by even those who employ it and a consideration of the instruments and mode of procedure will show that it is not adapted to deal with bony deflections, not to speak of complicating exostoses and ecchondroses. Yet no one can tell with certainty until the anterior part of a septal obstruction is removed from the naris what second and more formidable obstacle may be found behind it.

When the surgeon in doing an Asch operation finds that after removal of the cartilaginous deformity he has a bony part of the deflection to correct he will certainly be tempted to forcibly straighten this, impelled by a desire to relieve his patient in one operation. The Asch forceps, with its flat and parallel blades is not at all suited to this work. To quote Roe: "With flat-bladed forceps it is only possible, except by twisting the blades to bring the bend in the septum up to the median line, which seldom suffices to fracture the bone, and then only when the bend in it is so great and the blade of the forceps sufficiently wide to bring a large amount of force to bear at the center of the angle."

It seems to me that the only way that the Asch forceps can be made efficient is by twisting the septum with it, a proceeding rightly forbidden by Asch and Mayer as dangerous. To complete the Asch operation with the Roe forceps where there is bony deviation would be a better proceeding, but their action is unreliable unless the septum has been previously weakened by chiseling or trephining and this can not be done with accuracy without the aid of vision. I do not see how an exostosis behind a cartilaginous deflection can be distinguished from a bony deflection during an operation done without the aid of sight; yet to attempt to crush in an exostosis with fracturing forceps is obviously useless and liable to do injury. It seems to be impossible to accurately determine the extent and nature of a bony obstruction during an Asch operation. Max Thorner speaks of additional operations on spurs and posterior obstructions after the septum is healed in the new position. The bony deformity may be corrected after this

manner, but this means two operations to the patient, the first of which was out of all proportion in gravity to the result obtained, which may be so easily reached by resection as described.

The method I have described permits removal of bony obstructions at the same time that the deflection is corrected. There is one condition which may be saved for a secondary operation with profit and this is the dissection from its bed of the anterior lower angle of the quadrangular cartilage when this is dislocated from the superior maxillary crest and lies across the entrance to the nostril of the concave side of the deflection. The

Ingals' spud. (One-half size.)

reason for postponing the removal of this angle is the fact that it is most readily dissected out by means of an incision in the nostril of the concavity and it is not desirable to wound both nares at the same time.

There is a good deal of hemorrhage during the Asch operation. This is admitted in the descriptions of most operators. Stucky graphically speaks of "the patient under an anesthetic bleeding profusely and choking with blood."

The Asch and Mayer tubes are objectionable. An operation for the correction of septal deflection should be so perfect that the nostril remains open without support. The tube is an irritating foreign body like any

Ingals' nasal spatula. (One-half size.) Sets of three varying in width, angle of 45 degrees. Made of steel.

other within the nose and in one that has just been wounded by an operation is doubly irritating. It is not to be compared in harmlessness with soft lint, made slippery with imbibed mucus. Max Thorner, an ardent advocate of the Asch operation, says: "There is no doubt that granulation tissue will spring up around, above and below the tube." Richardson, who warmly endorses the Asch method, says: Nor can the fact be denied that such a body as a splint of hard rubber placed within the nasal cavity will produce temperature and inflammatory reaction." He speaks of "exuberant growth of granulation tissue" about the edges of such a foreign body.

Roe's septum forceps.

The position of the head in the Asch operation produces venous congestion and increases the bleeding during its performance, while the upright position assumed by the patient during a rhinoscopic operation together with the effect of cocain limit the bleeding to a minimum.

General narcosis includes the usual dangers and disagreeable after-effects and a rhinoscopic operation can not well be done where it is employed. Vision is difficult with the patient lying down and the tendency to hemorrhage soon makes a view of the field of operation impossible. E. F. Ingals in a personal communication has informed me that the correction of septal deflections in children with the use of anesthesia has proven unsatisfactory to him for the reasons mentioned. The introduction of a blunt separator into the naris at the beginning of the Asch operation to discover and break up adhesions seems to me a crude and rough way of finding what can be discovered with a probe without difficulty and irritation by means of rhinoscopy. Adhesions between the turbinals and septum are very rare and where they exist are best severed by cutting instruments.

There is no reason for tearing them apart with blunt ones. It seems to me that the chief reason for the growing popularity of the Asch operation is its ease of performance and the time saved by the fact that but a few minutes are required for it. Its chief defects are that it can not deal intelligently with the frequent bony obstructions and that it does not remove the redundancy of the septum. Though it must be admitted that the procedure I have advocated is at times tedious and requires great painstaking; as elsewhere, time and care give better results than hasty and forcible work.

THE INDICATIONS FOR MYOMECTOMY IN YOUNG MARRIED WOMEN, WITH A REPORT OF FOUR CASES OF STRANGULATION OF FIBROIDS DURING PUERPERAL INVOLUTION.

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My belief that the comparative rareness of the accident which forms the subject of this paper, together with the absence of any description of it from the more accessible literature, makes me think these four cases worthy of record; and, moreover, that their considerable clinical importance makes a systematic presentation of the accident worth attempting. These are the two objects of the present paper.

CASE 1.—M. L., a primipara of 30, seen March 12, 1898, with Dr. C. W. Townsend. She was delivered by normal labor on March 9. At the time of the labor, Dr. Townsend discovered a fibroid tumor as large as a mandarin orange on the anterior face of the uterus, near the left cornu. On March 11, she began to have extremely sharp pain in the region of the fibroid, which then became very tender to the touch. This pain came in paroxysms, was intermittent, and evidently very severe; relieved only after four 1/8 gr. doses of morphia subcutaneously. The next morning the patient was free from pain and the fibroid was not tender. At noon the same pain recurred; for a time it quieted down, and then came on in the afternoon as severely as before, still intermittent, but in the height of the paroxysms almost continuous. I saw her at this time.

The fibroid was easily recognized, and was exquisitely tender to the touch; the abdomen was swollen and tympanitic, the rectum empty and inflated, and both rectum and vaginal vault were hard and board-like in feeling and apparently drawn up into the pelvis. The diagnosis of strangulated fibroid seemed clear, and I was inclined to think that there was a little pelvic peritonitis present. As the pain became less during the time I was there, I advised no treatment, but close watching; the pain gradually ceased and did not return; the patient made a good recovery. The fibroid rapidly diminished in size, and Dr. Townsend tells me it could not be felt six weeks later. At a second confinement on Nov. 8, 1899, two small fibroids, each the size of half an English walnut, were to be felt on the uterus at the same spot. The patient made an absolutely normal convalescence from this second labor.

CASE 2.—I saw this case with Dr. G. K. Sabine and Dr. S. A.

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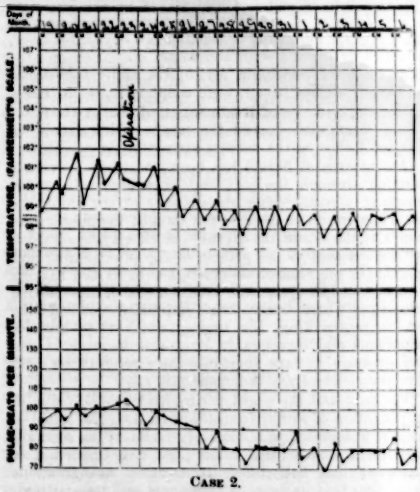
Houghton, of Brookline, on Dec. 22, 1898. She was a multipara, 38 years old. All her labors had been easy and successful. She had a spontaneous miscarriage, eight years ago, and was told by her physician that she perhaps had a fibroid, but no definite diagnosis was made. She has been in the best of health since. She was delivered Dec. 1, 1898, and made a normal convalescence, unmarked by any symptom or elevation of temperature, until December 19 (18 days), when she felt some pain of neuralgic character on the outside of the left thigh, and had a moderate elevation of temperature (see chart). The next day there was some paroxysmal abdominal pain and the temperature rose higher. The uterus was found by Dr. Sabine to be at the level of the umbilicus, but not tender. The abdominal pain was extremely severe, and only partially relieved by large doses of morphia. There was great tenderness to the left of the uterus and some tympanites, flatus passing freely. On the next morning, the fourth day of the attack, the distension was more marked; the pain was now continuous, but still marked by occasional paroxysmal increase. There was now extensive tenderness over the uterus, and also over a large mass, which was now felt for the first time, to the left and on a level with the fundus, apparently continuous with the uterus. The sharp neuralgic pain in the outside of the left thigh had continued



CASE 2.

throughout this time, and was now very distressing. I saw her at 5 p. m. of that day, and my notes say: "Aspect slightly peritoneal. Pulse a little wiry. Temperature 103. Coils of intestine perceptible to the touch and perhaps to the eye in the upper abdomen. On vaginal examination a mass to the left apparently continuous with the cervix. Diagnosis thought to lie between a strangulated fibroid and a collection of pus. Some peritonitis is present in either case." We decided to wait until morning before operating in the hope of improvement or more definite indication. On the next day, December 23, at 9 a. m., the condition was as follows: "Facies worse. Coils of intestine distinctly visible to eye in upper abdomen. Face flushed, finger nails cyanotic, color in them returning slowly after pressure." The patient's general condition was so bad that I thought that the shock of an abdominal operation would be almost certainly fatal, and advised an immediate vaginal incision, on the ground that bad as her condition was, it was probably shortly to become hopeless.

Under ether the uterus was found at the umbilicus, and a mass was felt to its left of about equal size and continuous with it. The lower end of the mass was at about the level of the internal os, small, tapering and firm. A finger forced through the cervix found the uterine cavity unaltered in shape and at least four inches deep. An incision was made through the mucous and submucous tissues to the left of the cervix, the finger was forced up through the connective tissue into contact with the lower end of the mass, which was then felt to be evidently a fibroid. A pair of sharp scissors was plunged deeply into the tumor, opened and withdrawn. A finger pushed into this opening found the tissues extremely friable, and enlarged the opening in the tumor freely, extending it to the full length of the finger. The withdrawal of the finger was followed by a smart flow of rather thinnish blood. This was allowed to continue for about two minutes, but as at the end of this time it was rather profuse and continued without diminution, the hole was then plugged with iodoform gauze. The patient came out of ether rapidly, with the pulse rather better than before operation. During the evening and night the patient slightly improved, the temperature falling. The sharp pain in the left thigh continued, but was now relieved by morphia and the patient passed a fair night. The next morning she looked decidedly better and was complaining of nothing except of intense pain in the left thigh. The gauze was withdrawn and this pain instantly and finally ceased. From this time on there was a considerable, though decreasing flow of serum from the wound, and the patient steadily convalesced, there being no new symptoms. As this patient's age makes another pregnancy unlikely, and the fibroid has caused no symptoms, it has been left undisturbed.

CASE 3.—Mrs. C. W. was seen on Feb. 3, 1900, with Dr. Willard H. Pierce, and Dr. G. B. Twitchell of Greenfield, Mass. She was a primipara, 26 years old, 7 years married, and has always desired children, but has never been pregnant. She has always been anemic, but was otherwise well, except three years ago, when she had an acute abdominal attack of unknown cause and gradual onset, which kept her in bed for three weeks and under treatment for three months, and was considered at the time a salpingitis, though as the appendages of both sides were found normal at the time of operation this was probably a mistaken diagnosis. She made an entire recovery, has been very well and free from pelvic pain ever since. She was delivered Feb. 1, 1900, by Dr. Pierce, by difficult high forceps following an atonic labor, of a still-born child. On February 2, she was attacked by tenesmic pains in the rectum, appearing at intervals, with comfort between, and at first relieved by morphia, but during the night they became so severe that morphia did not relieve them, even though a total of one grain was given subcutaneously (the patient had no habit). They finally disappeared after primary anesthesia by chloroform, but only to reappear in still more severe form a few hours later. I saw her about noon (two days and a half after delivery); the temperature was then 104.4, the color and appearance very bad, the nails cyanotic, the abdomen tympanitic, the coils of intestines outlined to the eye under the abdominal wall. Tenderness was so extreme that the patient was unwilling to have the abdomen touched without ether, and pain was again severe. Under ether I found the uterus retroflexed, and consequently crowded against the rectum, and on raising it found a fibroid the size of an orange in the posterior wall and slightly to the left. The patient recovered from ether free of pain.

As the tumor was plainly too high for a vaginal incision and I anticipated considerable relief from raising the retroflexion, and as anesthesia had each time relieved the pain, I recommended that an expectant policy should be pursued for the immediate future; that the patient be anesthetized, and the uterus, if necessary, raised as soon as an attack of pain began. If the attacks were persistent and the condition grew worse, I proposed to make an incision into the tumor from within the uterus, for the purpose of drainage. There were fortunately no further attacks of paroxysmal pain, but the temperature continued high, abdominal tenderness and moderate pain persisted, tympanites was for some days troublesome, and the outcome of the case at first looked uncertain; but this condition passed off, the patient gained rapidly, and the remainder of

the convalescence was normal. I regret that, owing to the illness of her physician, I was unable to obtain detailed records of this portion of the case.

On August 14 she came to my office, anemic, but otherwise well and free from symptoms. She was exceedingly anxious to have the fibroid removed, in hope of another pregnancy, and from fear of a repetition of the trouble. On examination I could find nothing but a markedly tender spot at about the site where the tumor was last felt, and advised the use of glycerin depletion till the heat of the summer was over. During the next two months she had two slight attacks of acute abdominal pain, accompanied by some obstruction of the bowels. On September 17, I opened the abdomen; I found the intestines and omentum adherent together in a large mass on the left side, the omentum in front, and the sigmoid behind the left broad ligament and appendages. These adhesions were thoroughly separated, though with much difficulty, being exceedingly tough and well organized. There was a fibroid the size of a very small English walnut on the posterior surface of the uterus near the fundus. It was exceedingly adherent to its capsule, and it was a long and tedious process to take it out from its bed. The tube and ovary were normal and were not removed.

There was almost uncontrollable pain referred to the left lower abdomen for the next twenty-four hours, although there was no vomiting, the bowels moved spontaneously twice in the first twenty-four hours, and gas passed within a few hours of the operation. This pain was finally and definitely relieved after taking large quantities of hot water by the mouth. A considerable quantity of feces was passed in the first two or three days after operation, although four days had been devoted to care of the bowels before it, and it was supposed that they were thoroughly unloaded. The downward movement of this mass of feces was probably the cause of the pain above referred to. The remainder of the convalescence was uneventful and the patient is in good condition to-day.

CASE 4.—Mrs. A. L., seen Dec. 21, 1900, with Dr. A. C. Aldrich, of Somerville. The patient was a iv-para, 30 years old. She was delivered on the morning of December 18, by a normal easy labor. Was comfortable and normal till the evening of the next day, when she was attacked by intermittent pain resembling labor pains but referred to the left ovarian region, and vomited at short intervals all night; the temperature being 101 at 1 a. m., and the pain increasing until she was given a fourth of a grain of morphia subcutaneously at 4 a. m. This was followed by relief, but the pains recurred in the afternoon of the following day; the temperature rose then to 105, the pulse to 110. The abdomen was then slightly tympanitic, and not very tender, except in the left ovarian region; the pains more moderate than on the preceding day. On the 21st, when I saw her, the temperature had been 101.8 all day, the pains were moderate, the pulse about 80. On examination the fundus of the uterus was about at the umbilicus, and anteflexed. On the left cornu there was a moderate projection, like a small fibroid. This was exceedingly sensitive to pressure, but there was no tenderness anywhere else. She was recommended ether for the relief of pain, and to abstain from nursing, since it had been noticed in this case that putting the child to the breast produced an increase of the pain. The trouble gradually passed away and no ill effects persisted, yet it must be noticed that the elevation of temperature and the abdominal pain and tenderness presented a very alarming picture at the time, and until the diagnosis had been established. Mrs. L. gave the history of having had a similar attack after the birth of her first child, but had escaped it after the second and third deliveries.

The clinical picture presented by these cases seems to me an exceedingly clear one. In each case the patient is attacked within the first few (2, 18, 1, and 1 respectively) days after labor, by severe intermittent paroxysmal pain bearing a close resemblance to labor pains, but more severely painful; the pains being referred in each case to the spot at which on subsequent examination a fibroid is found. A few hours of this pain is followed by considerable pyrexia, tympanites, vomiting, abdominal tenderness, and, in short, all the symptoms of a pelvic peritonitis.

The detection of the tumor varies in ease with its situation. In the first case, in which it was fairly large and on the anterior wall of the uterus, it was found with the greatest ease. In the second case it was not observed at all until the patient was in a very bad condition, by which time it is probable that it had greatly increased in size from the edema consequent on strangulation, but even then its characteristics were not easily made out until after ether had been given. In the third case it was impossible to detect it without ether though it was then plain. In the fourth the diagnosis was made more from symptomatology than from the examination, although on careful examination a localized irregularity of the contour of the uterus, probably representing a very small fibroid, could be made out with fair certainty. This case was promptly relieved by morphia and was throughout of less severity than any of the others.

The features of an intermittent paroxysmal pain of great severity appearing in the first few days after labor, attended by pyrexia with abdominal distension and the other signs of beginning peritonitis, and the presence of a small uterine tumor, were common to all the cases.

The end and aim of treatment is, of course, the relief of the strangulation, and the means which should be adopted follow on the natural history of the accident.

An intramural fibroid has been nourished by vessels running through the soft and expanded wall of the pregnant uterus. After the delivery of the child, the rapid involution of the first few days of the puerperium decreases the size of the uterus—which may be regarded for the moment as the pedicle of the tumor—and thus so changes the relation of the tumor to its bed that its presence excites spasmodic contractions of the uterine muscles. These contractions partially cut off the venous return from the tumor, which thus becomes edematous and increases in size; this increase of size and pressure in turn increases the strangulation, and thus the vicious circle is formed.

The pain and the slight peritonitis—probably due to an exudation of serum from the surface of the tumor—are well recognized as a necessary result of the strangulation of any abdominal tumor; but it is important to remember that this differs from other strangulations in the fact that its cause is functional and intermittent, *i. e.*, it is due to the intermittent action of the muscular fibers which surround the tumor, and are excited into activity by its presence. For this reason the allaying of the irritability of these fibers by morphia, or better—and probably far better—their complete relaxation by anesthesia, at once puts an end to the strangulation for the time; and it is probable that the majority of the cases so treated will recover spontaneously, as in Cases 1, 3 and 4. When this happy result does not follow there can be no relief unless by the knife, as in Case 2.

In operative cases in which the situation of the tumor renders it inaccessible except by the abdomen, or in any case in which the inefficiency of the treatment by occasional anesthesia and morphia has been demonstrated while the patient is still in good operable condition, I should advocate an abdominal extirpation of the tumor, by myomectomy, or hysterectomy, as circumstances might render necessary; but when the tumor is easily accessible from the vagina, or even from the interior

of the uterus—as in many largely sessile tumors—and especially in cases in which a resort to the knife is not decided upon until the patient is nearly *in extremis*, I think well of some such procedure as that employed in Case 2, of which I wish to speak a little more in detail.

This operation though, so far as I know, previously untried, was naturally suggested by the nature of the lesion which had been diagnosed. It was evident that the increasing size of the tumor was due to a compression which was just sufficient to occlude the veins without stopping the influx from the arteries which supplied the tumor. It was also evident that this muscular compression was excited and continued by the pressure of the enlarged tumor on the surrounding muscular fibers. It seemed probable that if the retained serum were freely drained off and the tumor allowed to decrease rapidly in size, the contracting muscular fibers would be relaxed and free return of the venous blood be permitted. All these consequences apparently followed, as the result was immediate and exceedingly happy.

This subject is to me a new one. I have seen no mention of it in any text-book, nor even in periodical literature. No doubt many such cases have been seen by other men and perhaps reported spasmodically, but the subject seems to me to have received less attention than it deserves, and to be worth calling to the attention of the profession generally.

The possibility of the occurrence of this distressing and dangerous accident after parturition should, I think, be made an element in weighing the question of the necessity for removing fibroids by myomectomy from young married women.

CONCLUSIONS.

The diagnostic points are the following:

1. The appearance in the early part of the puerperium of severe, intermittent, paroxysmal pains bearing close resemblance to labor pains, and referred to a definite spot at which there is acute tenderness.

2. The appearance, after a few hours of these pains, of the symptoms of a pelvic peritonitis, and often in an alarming degree.

3. The detection on physical examination of an irregularity in the uterine wall at the tender spot, not necessarily of large size, and possibly to be made out only under anesthesia.

The principles of treatment should be:

1. The control of the pain by morphia, and if this is not promptly successful, by brief but profound anesthesia, which should be succeeded by relief, and should be repeated whenever the pain reappears.

2. If the preceding measures fail, and the patient is still in good operable condition, an immediate myomectomy is probably the best treatment.

3. If the condition has remained undiagnosed until the peritoneal symptoms are extreme and an abdominal operation will probably involve a high mortality risk, and if in this case the tumor is in any way accessible from below, its free puncture and the drainage of the contained serum may probably be relied upon to terminate the attack, and permit a safe removal of the tumor at a later date, should that be necessary.

130 Marlborough Street.

Quack Medicines in Germany.—One of the measures adopted in the campaign against charlatanry being waged in Germany, is the publication in the medical journals of descriptions of the nature of the most widely advertised quack medicines.

SYMPHYSIOTOMY.

PRACTICAL DEDUCTIONS FROM AN EXPERIENCE IN THIRTEEN CASES WITHOUT A DEATH FROM THE OPERATION.*

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In complying with the request of the officers of this Section for a short paper on symphysiotomy it is my belief that the most acceptable handling of the subject would be such as best exploits the lessons learned through my own experiences.

I have performed symphysiotomy thirteen times upon eleven individuals, repeating the operation in subsequent pregnancies upon two women, the operation being done three times on one, she having had it done in the first instance by another physician.

Were I to have my obstetrical work to do over again I would refrain from symphysiotomy in one of the cases, selecting Cesarean section instead; I would perform symphysiotomy with less previous use of the forceps in three of these cases, and would perform symphysiotomy in at least ten cases in which it was not done.

Cesarean section was done in one case successfully, in which symphysiotomy would have done equally well, speaking from an *a priori* point of view. In a service of some 5000 confinements, partly indoor and partly outdoor, I estimate that there were about 25 cases which would have been suitable for symphysiotomy from a theoretical standpoint, had they been reached when in proper condition to justify the operation. The results in my cases have been as follows:

CASE 1.—Third pregnancy following craniotomy. Complete recovery from symphysiotomy; child still-born from prolapsus funis, due to shoulder presentation.

CASE 2.—Breech presentation. Cephalic version performed by another physician. Complete recovery from symphysiotomy done by the writer. Child still-born as a result of version and forceps efforts.

CASE 3.—Primipara. Delivery of twins following symphysiotomy. Complete recovery. Infants lived.

CASE 4.—Primipara 3 days in labor. Symphysiotomy, complete recovery. Infant lived.

CASE 5.—Second pregnancy. First child born dead after a week of labor. A vaginal cicatrix of great thickness limited the vaginal caliber to 2 inches diameter. Cicatrix was cut on both sides of the posterior median line. Symphysiotomy was next performed and child delivered in good condition. The pubic wound healed properly, but two sloughs from the cicatricial tissue caused vesico-vaginal and recto-vaginal fistulæ. Puerperal and pneumonic sepsis ensued from bacillus coli communis infection. Patient died 33 days after delivery. Cesarean section should have been performed.

CASE 6. A primipara. Symphysiotomy was performed after hard use of the forceps. Complete recovery. Child lived.

CASE 7.—Third pregnancy following two still-births, one after forceps traction and the other after forceps, podalic version and traumatic separation of the body from the head by traction. Symphysiotomy performed in third labor. Complete recovery. Child lived.

CASE 8.—Eighth pregnancy. Two premature labors, two miscarriages, four forceps deliveries of living children. In present labor, forceps had been used unsuccessfully before I received the case. They also failed after extreme trial by me. Symphysiotomy performed. Complete recovery. Child lived.

CASE 9.—Second pregnancy. The first child was delivered dead after symphysiotomy performed by another physician. The second labor was completed by me after symphysiotomy. Complete recovery. Child living.

* Read before the Obstetrical Section of the New York Academy of Medicine, April 25, 1901.

CASE 10.—Primipara. After severe forceps use symphysiotomy was performed and the child delivered in good condition. Complete recovery.

CASE 11.—Third pregnancy; both of the others resulting in delivery of living children after violent efforts, but both children dying shortly after birth. I delivered the third child after symphysiotomy in excellent condition. Complete recovery of mother barring a pinhole fistula which lay just anterior to the cervix. I attribute it to the abnormal condition of the cervicovaginal tissues, which had been much injured in previous deliveries. Child lived.

CASE 12.—Same patient as Case 9.—Two previous symphysiotomies. Following hard forceps traction I performed symphysiotomy for the third time and delivered the child in excellent condition. Mother recovered completely.

CASE 13.—Eighth pregnancy. Two children living. Symphysiotomy performed after failure with forceps. Child delivered alive, but died quickly from over-use of the forceps. Complete recovery of the mother.

I afterwards delivered Cases 6 and 11 of living children without resorting to symphysiotomy. In each case the fetal head diameters were smaller than in the previous children.

Case 1 in a subsequent labor was in charge of another physician during my absence from the city. Podalic version, rupture of the uterus, and death of mother and child resulted.

Summarizing the results, I have operated 13 times without infection of the joint, and without a death due to the operation. Three children were lost and 11 saved. Perfect union of the pubes, that is, firm, fibrous union with a play of the joint of about one-eighth inch, has been secured in every case, except in Case 5, which died as above stated. Each patient was kept in bed four weeks. My method of operation was followed in all cases. Hemorrhage did not amount to more than three to four ounces at any time. No stitches were taken in any case. With the exception of Case 5 with the cicatricial vagina, there was no laceration of the vagina, bladder, urethra or peritoneum. No general disability has ensued. Moderate cystocele resulted in two cases, and bladder irritability lasted in most of the cases for four to six weeks. In no case has discharge from the wound occurred. In the last six cases the patients were placed in my symphysiotomy hammock bed, with marked improvement in comfort, cleanliness and ease of nursing.

A well-defined prejudice exists against symphysiotomy. This seems to be due to the dislike we feel to making wounds close to the vulva in labor, to the opening of a joint, to fear of hemorrhage that might be difficult to control, to fear of tearing the soft tissues around the symphysis, to fear of injuring the sacro-iliac joints, and to the dread of failure of union of the joint and consequent crippling.

This prejudice has been still further strengthened by two factors: 1, that the majority of operations have been undertaken only after severe efforts had been made to deliver the child with forceps, and 2, in about 90 per cent. of cases the operators' experiences have been limited to but one or two symphysiotomies.

In addition to the above, the general statistical results of the operation have, if taken at their face value, justified this prejudice, for a mortality percentage of between 9 and 10 is far from satisfactory. The true mortality can be had only after we have subtracted that due to all efforts at delivery which preceded the operation. The mortality from parturition is about seven-tenths of 1 per cent. From such cases as involve delay, version or forceps, and all objectionable features, difficult deliveries in short, the mortality, outside Cesarean section, symphysiotomy or craniotomy, is surely in the neighborhood of 4 to 5 per cent. The onus of such efforts long falsified the truth regarding Cesarean section; and it is still giving a bad name to symphysiotomy.

I protest against the recent statement of Professor Reynolds, that, when the patient is of the "favorable class" Cesarean section should be the choice, and when the "unfavorable class" symphysiotomy should be preferred.[1] Nor do I agree with him in the statement, that the essential mortality in Cesarean section is as low as that of symphysiotomy. Properly, an operator should select that method which will give the best results, not in general, but in his hands; and he may be able to get better results with the unsafer method as compared with such results in general.

In briefly considering the sources of prejudice against symphysiotomy I am compelled to speak from the standpoint of my method of operation, as my experience is limited to that method.

1. Wounds About the Vulva.—The site of the small wound made just below the clitoris can be made absolutely aseptic, even though infection of the vaginal tract has already occurred. This wound is kept open for but a few minutes while the joint is being severed; and it is kept safe from infection during delivery by placing a wet antiseptic wad of cotton over it until final closure. No stitches are required, as the mouth of the wound is tightly closed by bringing the knees together, which closes the vulva, and by drawing the skin to the median line with transpubic adhesive strips. Anterior rotation of the trochanters further helps to close the labia over the wound. A soft-rubber retention catheter being left in the bladder and dropped down behind the thighs to the bed-pan, avoids any necessity of disturbing the wound after dressing the patient for bed.

2. Opening of a Joint.—The dangers from opening a joint depend primarily upon the ability to secure perfect technic in asepsis, and in avoiding exposure of the bone structure in case of suppuration. Notwithstanding many statements which I have noted to the contrary, I believe perfect technic and asepsis can be easily attained in the subcutaneous method of section of the symphysis. The latter is not a joint in the ordinary sense, as, while there is motion there is not any play of one surface over the other. It is more like the joints of the bodies of the spinal vertebræ in construction than sliding joints, having a cartilaginous plate interposed between the pubic bones. The osseous tissue should not be touched by the knife, although it may occur. But certainly it is much easier to secure perfect asepsis here than in a Cesarean section, and drainage and thorough irrigation are easily obtained if needed.

3. Hemorrhage.—It is simply impossible for hemorrhage beyond several ounces to occur, unless one stupidly passes the scalpel below the pubes instead of along its face, cutting the bulbi vestibuli, or pushes the knife up beyond the upper border into the peritoneal cavity. That which might result from laceration of the vagina must depend upon the judgment used as to the amount of disproportion between the fetal head and the pelvic caliber and the care employed to secure full dilatation of the cervix before operating, and that employed during delivery by the operator and the one holding the pelvic crests. Separation of more than 2½ inches should not be counted upon to secure passage of the head.

4. Peri-symphysial Lacerations During Delivery.—

1. JOURNAL A. M. A., Feb. 16, 1901.

To my mind the chief anxiety is felt over this feature in symphysiotomy. Section, hemorrhage, sepsis and postpartum disability combined scarcely cause as much anxiety as this feature, and I have tried to study its points accordingly. Symphysiotomy should never be undertaken until one has introduced his hand within the cervix sufficiently to directly palpate the fetal head and pelvic inlet, and so ascertained that a reasonable pubic separation, 2½ inches will secure delivery. Next, as I believe in immediate delivery after pubic section, it is very important to secure full antepartum dilatation of the cervix before operating for these reasons: When the pubes have been separated the bladder and anterior cervix and vagina loose their support and show a marked increase over normal in the tendency to drag down in advance of the head and below the pubes. The anterior cervix appears at the vulva and the bladder rolls around the sub-pubic arch unless prevented. If forceps traction is made with the cervix insufficiently dilated these soft parts are then drawn away from the post-symphysial attachments and thus lead to lacerations. While antepartum dilatation can not be artificially rendered complete, it should be fully approximated by hands or rubber bags; then, in using the forceps, the disengaged hand should press back the cervix and bladder while the forceps slowly and gently bring the head, not so much through the brim as through the cervix. When the latter has been slipped back over the head, the next aim, after the head has entered the pelvic basin, is to assist anterior rotation of the occiput with the forceps. The separation of the pubes alters the normal mechanism as to rotation of the occiput under the pubes, the tendency being for the head to remain in a transverse position. Continued care must be taken in delivering the shoulders, delivery of the anterior shoulder first being my preference.

That my method of operating is best for avoiding lacerations I believe, because by it there is less operative separation of the tissues immediately connected with the symphysis than by other methods, and, consequently, less weakening of their supports and fewer starting points for laceration. I have tested this question by comparisons on cadavers and satisfied myself that this view is correct.

5. Injuries to the Sacro-Iliac Joints.—Such injuries need not occur so long as selection of the operation regards its proper scope. Its avoidance is further secured by means of skilful harmony of action between operator and the one holding the pelvic crests, which means steadiness in traction and evenness in pelvic support.

6. Failure of Joint Union and Subsequent Crippling.—If failure of joint union after symphysiotomy were a matter of good fortune rather than the reward of care there would not be any symphysiotomists. The natural tendency under ordinary care and by various means of pelvic support is to good union. Under the best methods such union becomes a practical certainty.

The following are the requirements necessary to secure the surest and best results:

1. Constant apposition of the pubic bones with even coaptation, but without compression.

2. Ability of the patient to empty the bowels and bladder without disturbance of the pubic joint, and ease of cleansing the genital and anal regions.

3. Freedom of restraint of the body above the pelvis, and of the limbs, whereby lactation can be performed and the great discomfort of prolonged restraint avoided.

4. The avoidance of bedsores.

Considering that what we want is a guarantee, not a probability, of union of the joint, I believe the only sure method of treatment is one in which the pelvis is swung in a U-shaped hammock. I used sandbags in my first two cases and a patent bed similar to the Dupont or Herbet "elevation bed," strapping strips of adhesive plaster across the pubes and pelvic sides; but, while I secured proper union, as many others have done by various methods, there was constant risk that the bags might get displaced or the patient turn on her side and the joint coaptation thus become disturbed.

In my last seven cases I have used my hammock-bed, descriptions of which have courteously been incorporated in the text-books of Drs. Jewett, Grandin and others. I feel satisfied that its features meet all the requirements mentioned above satisfactorily, and particularly afford a guarantee of joint union with proper coaptation of the opposing bones. The only criticism which has been applied to it is that of non-availability, which is true in private practice, but not in hospital work. Where my hammock is not available I recommend Dr. Dickinson's canvas sling, which can be swung from the ceiling or a tripod, and which, like my hammock, represents the safest method of securing union.

The Question of Sutures.—If I believed that suturing of the pubic bones were necessary after symphysiotomy I would discard the operation in favor of Cesarean section. But there is not the slightest need of such procedure by my method of operating; not even suturing of the soft parts is required. Drilling and suturing the bones greatly adds to the objections to the operation.

Scope of Symphysiotomy.—It seems scarcely worth the while to go over the arguments in favor of one or the other of the four means of securing delivery in obstructed pelvic cases. Nearly all of us argue along the line of our own successes; and in one respect this is, if not logical, at least wise, for the best method in the individual case depends more on the special skill of the operator by one method than upon the results obtained in general. The *essential* mortality from Cesarean section and symphysiotomy is not now far apart, although I believe that of the former to be nearly double the latter. The difference in fetal mortality is, of course, favorable to Cesarean section. The practical advantage between Cesarean section and symphysiotomy will depend upon the operator.

The most influential point affecting the results is the performance of the operation selected when the patient is in a favorable condition. This one point affects the results in general probably 50 per cent. For myself I grant symphysiotomy the following scope:

1. Mensural; obstructed delivery due to pelvic incapacity.—Where separation of the pubes is limited to 2½ inches to secure passage of the head, its availability is not easily ascertained, and we must consider the shape and dimensions of the pelvis and head. With equal length of the conjugata vera in different types of pelves a greater pubic separation is necessary in one form than in another.

The justo-minor pelvis requires a relatively wider separation than others, as gain in dimensions is secured entirely by the separation. Further, the "masculine" type of justo-minor pelvis, with its thicker bones, which encroach upon the caliber, will require more separation than the "juvenile" form with thinner bones.

The obliquely contracted, or Naegele pelvis, requires a relatively lesser separation, as the caliber is greater than in the justo-minor, and becomes utilized by the

head after pubic separation. To illustrate my meaning: If the right half of the pelvis is contracted but not the left, and the fetal head presents in a left occiput transverse, when the pubes separate the occiput moves snugly into the left half, slightly rotating posteriorly, with the right brow pressing into the inter-pubic space. In this way what might be called the normally inutilized space just to the side of the promontory is taken up and offsets the loss in caliber of the right half of the pelvis to some extent.

The narrow, funnel-shaped pelvis requires the least separation relatively, as the separation of the pubic bones, which is like the swinging open of double gates set somewhat out of the perpendicular, secures the fullest effect in increasing the transverse diameter. One-inch separation of the pubes increases the middle transverse diameter at the brim a fraction over one-half inch. The flat, rachitic pelvis, with its projecting promontory and narrow conjugata vera, occupies a place midway between the justo-minor and the narrow-transverse pelvis. The contracted outlet pelvis likewise occupies a middle place.

As symphysiotomy is an operation that should never be determined upon until a patient is in active labor, and as it requires but a few minutes to properly prepare for it, the actual test of the question of its adaptability for securing passage of the head is and should be made during labor and while the patient is anesthetized. Due regard must be given to the previous history in multiparæ and to palpation, pelvimetry, Müller's test, and, if we like, to cephalometry by Perret's method in both primiparæ and multiparæ; but one is neither justified in making a final decision nor required to do so previous to the stage of fair cervical dilatation and moderate test of both automatic engagement of the head and artificial effort with the forceps. An exception might be made to this that it would not be desirable conduct in view of the selection of Cesarean section when it was found that too much separation would be required to justify symphysiotomy. My answer to this would be that pelvic contractions to such degree as demand Cesarean section constitute an exception, as they can be determined before labor.

2. Symphysiotomy is justifiable in certain mal-presentations: Impacted posterior occipital, and chin presentations, in which the fetal pulse is good and delivery is not possible without mutilation.

The operation should give place to premature delivery when the forecast of impossible delivery without major operation is sure and the patient prefers it, or the physician is not accustomed to major operative work. It should give place to Cesarean section in cases in which there are obstructions to vaginal delivery by tumors, exostoses, cancer and pelvic contractions greater than the rule given above allows for symphysiotomy.

The great majority of cases of pelvic contraction beyond the scope of forceps delivery lie within the range of symphysiotomy. In some forty cases of such contractions occurring in my clinical experience, and observation of others' work, there was not one which could not have been delivered by symphysiotomy; and in only one case was Cesarean section positively indicated.

23 West Fifty-third Street.

Novel Post-graduate Course.—The medical officials in the duchy of Hesse were taken on a trip to Hamburg instead of having the usual course of post-graduate lectures. All the sanitary and hospital arrangements of the city were inspected under the guidance of experts.

Clinical Report.

FEVER OF HODGKIN'S DISEASE.

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NASHVILLE, TENN.

The "Note on the Fever of Hodgkin's Disease," by Dr. J. H. Musser,[1] has led me to report a case that, while it does not conform rigidly to a definite type of Rückfall fever, presents many characteristic points.

The case is that of a lady, 30 years of age, married, mother of three healthy children. Up to the present illness she had enjoyed good health. Her family history was negative. In the fall of 1898 she complained of weakness, malaise and swelling of the cervical glands. She was treated for malaria and spent the winter of 1898-9 in Florida. She stated that she had fever "off and on." Early in 1899 she had a febrile attack that persisted for some weeks. During that time the cervical glands on the left side and the inguinal glands on both sides became enlarged and tender. Upon subsidence of the fever the glands became reduced in size and less tender. In May there was another lighting up of the fever accompanied by growth and induration of the glands, but under Fowler's solution the pyrexia again subsided and the glands softened and diminished in size. All medication was suspended June 19. The temperature remained normal until June 26. The duration of the apyrexial period was about 16 days. From June 26 until July 30 there was a pyrexial wave reaching its fastigium about July 15, when the systematic record of temperature was begun.

From July 30 to August 10 the temperature hovered about normal with slight daily elevations and intermissions. Then followed an afebrile stage lasting three days. During the decline of the paroxysm the patient improved rapidly, the glands diminished in size, the color improved, the appetite became urgent and she was out of bed and going about the house. On August 14 the fever returned, and during the time between that date and the date of her death, September 30, there occurred three distinct paroxysms but with remissions only between. The temperature curve showed morning remissions and evening exacerbations as a rule, but there were observed scattered instances of a reversed type.

The record of the temperature and the amount and distribution of the glandular involvement may be seen in the accompanying diagrams. This case illustrated fairly well the tendency of the fever to recur in waves separated by an interval of calm. With the progress of the disease the waves increased in frequency, with lulls more brief between them. Repeated blood examinations showed no variation from the normal beyond a slight leucocytosis, noted but once, and oligocythemia toward the close. Late in the progress of the case there was considerable pain in the left arm, chest, right side of the abdomen and in the right hip and thigh, all easily accounted for by pressure effects. The liver and spleen were moderately enlarged. An autopsy could not be obtained.

Dr. Musser's paper is an important and valuable communication. The writer has seen four cases of Hodgkin's disease in Nashville during the past four years; in two the course was characterized by fever and two were seen for a brief period only and subsequently were lost sight of. Only in the case reported were there opportunities affording a partial study of the temperature.

1. American Medicine, Jan. 4, 1902.

Fecal Matters in Urine.—Desesquelle writes to the *Bulletin des Sciences Pharmacologiques* that the discovery of fecal matters when urine is being examined in case of cystitis, should not always be attributed to contamination of the receptacle, but should suggest the possibility of vesico-intestinal fistula. He mentions three cases in his experience in which the etiology of a rebellious cystitis was explained by the discovery of traces of fecal matters in the urine, when nothing previously had indicated such a possibility.

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REGENERATION OF NERVES.

The healing of nerves is a subject of much scientific as well as actual, practical interest. At the present time most investigators hold that when a peripheral nerve regenerates, either after division or degeneration, the peripheral segment undergoes "neurotization" from the end of the proximal portion. This means that the ends of the axons above the point of division or degeneration grow out into the distal part of the nerve, the continuity of which is thereby restored. Clinical surgery teaches that this process may require weeks and months for its completion. But there is another view, at the present time held by a small number only, which teaches that in nerve regeneration axons, medullary sheaths, and neurilemmata are formed from cells in the distal segment, called neuroblasts, and that the fusion of the different parts thus produced with one another and with the central part restores the continuity of the nerve trunk. This theory, which may be called the peripheral theory, is not in harmony with our present conception of neurons, each of which is regarded as a complete cellular unit capable of regenerating its lost parts, at least within certain limits.

The most recent investigation in nerve regeneration is by the two Englishmen, Charles A. Ballance and Purves Stewart,[1] whose numerous experiments gave results that in their view are reconcilable only with the peripheral theory of regeneration. Ballance and Stewart find that when a nerve trunk is divided the axons and myelin sheaths soon suffer a fragmentary disintegration followed by absorption, which eventually extends throughout the entire nerve distal to the point of division, while in the proximal end there is only limited degeneration, the cut fibers curving back and forming a more or less distinct bulb-like swelling. The subsequent regenerative changes take place in about the same manner whether or not the cut ends are united by suture or other means. The cells of the neurilemma take on active neuroblastic function and produce short lengths of axons and myelin sheaths, which, linking themselves together, form continuous nerve fibers. At first the new sheaths are beaded, due it is thought to the presence at more or less regular intervals of cells which produce the myelin. Finally, the cells become less conspicuous and are recognizable at the internodal points only. In the scar tissue that always forms between the ends of a divided nerve, the new sheaths increase in number from above downward and not from below upward as would be the case did the new sheaths represent downgrowths of the old. In transplantation experiments the engrafted nerve acts as a scaffolding for the invading neuroblasts which enter chiefly by the side of new blood vessels. As regards the axons, our authors state that from the appearances obtained by various methods "it is clear that regeneration of axis cylinders does not take place by a process of outgrowth from the proximal segment, but is commenced and completed by the activity of cells already existing in the trunk of the nerve." As stated, the junction of the proximal and distal segments of a divided nerve is not essential for the regeneration of axons in the distal part, but the axons that form under such conditions do not attain maturity. As the proliferating neurilemma sheaths finish their activity as producers of myelin and axons they arrange themselves in columns and coalesce into new neurilemmata enclosing the newly-formed myelin, which in turn is wrapped around a new axon.

Such in brevity is the manner in which nerves heal, according to the English investigators. They regard the peripheral nervous system as composed of chains of neuroblasts fused to form neurilemmata, myelin sheaths, and axons. The limited degree of regeneration of axons in the central nervous system, as seen, for example, in hemisection of the cord, they would explain as dependent upon the absence here of neurilemmata, which are of fundamental import in regeneration of axons and myelin sheaths. The neuron theory must be abandoned, because it is not in harmony with the facts observed by them in the healing of peripheral nerves. In the literature are several examples of early return of sensation after secondary suture of divided nerves. Jessop, Langenbeck and MacCormac have recorded cases of secondary nerve suture in which sensation returned on the eighth day, the seventh day, and the same day after the operation, and other cases of like nature might be cited. Ballance and Stewart point out that this early return of sensation after secondary suture is easily explained on the score of "peripheral regeneration" of nerves, the secondary suture restoring the conductivity of the otherwise quite fully regenerated parts. But there are many conflicting statements in the literature in regard to the early return of sensation after secondary suture, and it is noteworthy that there is no early return of motion under similar conditions; for this reason much weight can not be attached to the significance of the early return of sensation after secondary suture in its bearing upon the mode of regeneration.

Without attempting minute criticism of the work of Ballance and Stewart, it may be permissible to point out the general fact that the peripheral degeneration distal to the point of division of a nerve does not harmonize well with the theory that regeneration is accomplished by the neurilemma cells taking on neuroblastic

1. The Healing of Nerves, London, 1901.

functions. If these cells have the power to form pieces of axons and medullary sheaths, at first discontinuous, it becomes rather puzzling to attempt to discover any good explanation for the degeneration that follows division. It rather would seem that the peripheral end, if of peripheral origin, might maintain its vitality at least for a time even though its connection with the central neurocytes is severed. On the other hand, degeneration after nerve division is easily understood when we regard the neuron as a functional, nutritive and anatomic unit. Further investigations are necessary before the neuron concept now in vogue is materially modified.

FUNCTIONAL ATHYROIDISM.

The impression is gaining ground that besides disease-conditions due to absence of the thyroid gland or total inhibition of its secretion, there are also functional deficiencies of thyroid secretion that produce recognizable symptoms. These symptomatic conditions have proved utterly obstinate to treatment, as a rule, up to the present time because of failure to recognize their cause. Two recent contributions to the subject show that the therapy of these conditions is very encouraging when their true etiology is recognized and that the diagnosis is not difficult if suspicions of the nature of the fundamental disturbance of metabolism are aroused. The therapeutic test of the administration of thyroid extract and its good effect makes the diagnostic conclusions absolutely certain.

Dr. Heinrich Stern[1] recently called attention to the fact that juvenile obesity is not infrequently accompained by a tendency to tachycardia, with symptomatic dyspnea on exertion. These conditions are more common among females than among males. Not infrequently there is an associated chlorotic tendency. This set of symptoms seems to depend on faulty function of the thyroid or parathyroid glands. It has been noted often before that thyroid extract frequently proves beneficial in cases of the adolescent obesity that sometimes sets in just after puberty. About this time the thymus gland disappears and the thyroid gland takes on special developmental activity. Any interference with normal development is sure to be felt in the general metabolism. The thyroid enlarges proportionately more in females than in males at this time, and all through the subsequent life this gland is evidently more intimately related to metabolic processes of various kinds and especially with sexual manifestations than in the male. It is not surprising, then, that these conditions which result from lowered function of the thyroid, obesity, nervous symptoms, and at times chlorosis, should be seen rather frequently in the female. The therapeutic test of the good effect derived from the administration of thyroid extract would show that the presumed etiology is correct.

At the October meeting of the Harvard Medical Society of New York City, Dr. J. G. Perry called attention to a set of symptoms also presumably due to deficient thyroid secretion that improved under the administration of the gland over prolonged periods. This last characteristic of prolonged tolerance to thyroid medication is of itself an absolute index of thyroidic disturbance of metabolism, since symptoms of intolerance develop very soon in the normal individual. In Perry's cases four symptoms were practically always present. They were: 1, a tendency to obscure painful conditions of the joints somewhat resembling the neuropathic joint pains described by Charcot and grouped under the term neuro-arthropathy; 2, persistent headache for which no direct cause can be found; 3, a weak and rapid heart; and 4, in women—a marked menorrhagia. In one series of cases described, these symptoms were noted in three generations of the same family. In the grandchild there was a distinct associated myxedemic tendency that promptly grew better under the administration of thyroid extract.

It would seem, then, that though the mystery of thyroid chemism remains almost as obscure as ever, we may yet be able to base rational therapeutics of functional athyroidism on clinical experience. It is not the first time in the history of medicine that clinical teaching has led scientific theory. Great care is needed to avoid self deception in such matters, but the field is most promising for empirical applications of clinical indications. The success so far attained encourages the hope that further experience may add still more to practical knowledge on the subject.

1. See THE JOURNAL A. M. A., Feb. 15, p. 447; also p. 474.

THE DAWN OF FRATERNAL UNITY.

We are too apt to take a pessimistic view of things in relation to the medical profession; we are so conscious of our failure to be what we ought, or what we would like, to be that the gloomy aspect often unduly colors our outlook on medical conditions. It is not altogether bad if it but makes us duly modest and causes us to strive for more satisfactory conditions, but it is well to occasionally look on the bright side. There are many reasons for this and we believe never more than at present.

The address of Dr. Foshay[1] in this issue is in this tone and, while it is of special local interest, it will also interest many in every part of the country. It points to a new era in medicine, not one to come at some future time, but a new era that has already dawned. We do not refer to the new conditions which Foshay mentions, wherein medicine has arisen from the domain of empiric art to a fixed position among the applied sciences; nor to the broadening and liberalizing influence of the higher education that is beginning to be felt; nor yet to the bright hopes of the physician's greater usefulness in the future from the rapid increase in scientific knowledge in every branch of medicine. All these indicate a new era in medicine, which promises a higher good for the people and a future for medicine encouraging in every way. But the particular thing to which we

1. See page 625.

refer points to a new era in the profession itself; to a fraternalism that has in the past been none too much in evidence, to a spirit of self-sacrifice and a banding together for mutual good. That the address was timely and found the ground prepared for its recommendations is the best evidence that the new era of fraternity and combined effort is at hand. What is true in Cleveland is true elsewhere, more true now, we believe, than at any time in the past; the profession is ready to become a united body, to drop its bickerings and work for the good of all. In no other profession can this be done more appropriately, for in no other are the local and professional interests so closely allied in every way to the public good. We have no need to sacrifice any of our high traditional ideals; these are all in the line of progress we wish to follow. That they have not been enough our guides in the past is the reason for the evils that have existed and of which we now begin to see the end.

What a united profession can do needs hardly to be told and yet the good it can accomplish may be more than our fancy can at present compass. First of all it will command public respect and esteem more than ever before and this alone is the key to much of what we need. An influential medical profession, respected for qualities that no one can overlook or honestly depreciate, will be the only possible successful bulwark against the multiform manifestations of quackery. It can not be exploited to its disadvantage by unprincipled commercialism. Even should the socialistic ideals be realized at some future time the profession will still be one of the right hands of the State, the indispensable adjunct of the civilization of the day. We are not looking for a medical millenium, for whatever the order social evolution may take, everything will be at our command if we march as a united body on the road upon which we have entered. As Dr. Foshay says, we are living in the most wonderful period of the history of medicine, but it largely depends upon our union and harmony in work, as well as upon our scientific spirit, to make the present only an adumbration of what will be realized by our successors.

ALCOHOL A DANGEROUS FOOD.

It seems to be the fashion to commend alcohol as an article of diet. Text-books on physiology, university professors, authors of papers before medical meetings, all have their say on the subject and their words are taken up by the reporters and given to the newspaper-reading public not at all diminished in the strength of their endorsement of this agent. We call it a fashion, because just at present there seems to be an unusual amount of literature devoted to the subject. Indeed, this has been noticeable since Professor Atwater gave his opinion that alcohol is a food. He was, however, much more guarded in his statements than many that have followed him. In fact, if we accept only his dictum that it is a food, but one that a healthy man can better get along without, it would seem that the less we say of its purely nutritive value the better. Some of the later utterances, however, are that alcohol in moderation harms no one, but is actually beneficial. Much of this is undoubtedly the reaction caused by extreme statements on the other side, but it is not exactly becoming for scientific men to be thus influenced. The question whether or not alcohol is a food is largely an academic one; except when prescribed for pathologic conditions it rarely if ever fills the place of a food. There is good testimony, not yet controverted or even contradicted, that comparatively small doses of alcohol have a direct deleterious action on the nervous functions and the capacity for work. We should not ignore these facts in the discussion of the safety or value of this agent in the normal human system, any more than we should ignore its occasional usefulness in conditions of disease. We may admit that it seems to add to the enjoyment of life for many individuals and yet we question its real benefit. Everyone admits that excess in alcohol is bad, but a large proportion of the population seems to find its happiness in such excess.

We believe that the consensus of the best medical opinion of to-day is that alcohol, while a valuable medicine in some conditions—and here many would include a limited dietetic value—is not properly a food. It is not what the Germans call a *Nahrungsmittel*, but is a luxury and a perfectly non-essential one to the healthy normal individual. The need of moderation in the use of alcohol and the difficulty in drawing the line between moderation and excess, together with the habit-building tendency, have all to be considered. The worst thing about the present tendency to say a good word for alcohol, is the certainty that whatever may be said will be utilized unscrupulously by advocates of the liquor interest. Give them an inch and they will take a mile, and some of our confrères have had good reason to regret this fact. We believe it will be found far safer for medical men to stand on the facts opposing the general use of alcohol than to even qualifiedly advocate its usage, except exclusively as a medicine and under medical prescription. Its cause is not one that requires any fostering by our profession.

TETANUS AFTER INJECTIONS OF GELATIN.

The recent outbreak of tetanus in St. Louis following the injection of faultily prepared and contaminated diphtheria antitoxin, and the occasional development of tetanus after vaccination are only too striking an illustration of the grave dangers that may lurk in otherwise not only harmless but beneficial and even life-saving procedures. Physicians can not be keenly enough alive to the fact that the cause of tetanus, be it the bacillus or its toxin, may find its way into the human body under the circumstances mentioned. Recently, cases of tetanus have developed after injections of gelatin—Gerulanos, Georgi, Lorenz.[1] In all these cases (four)

1. Deutsche Zeitschrift für Chirurgie, Bd. lxi. Abstr. in Centralbl. f. Bakt., 1902, xxxi, Feb. 2, 1902, p. 112-113.

the gelatin was injected for the purpose of arresting hemorrhage after severe operations in connection with existing lesions, such as subphrenic abscess and disease of the urinary tract. In one case a small abscess developed at the point of injection; the pus from it caused tetanus in a rabbit. In the other cases the connection between the injection of gelatin and the tetanus does not seem to have been proved by scientific methods, but the relation was so close that the observers report the cases as examples of tetanus after injection of gelatin. In one of the cases the hemorrhage was so threatening and severe that the solution of gelatin was injected "without sufficient sterilization." Recent experimental tests made at Strassburg proved the presence of tetanus germs in four out of six samples of gelatin.[2] Experiences such as those referred to in the foregoing carry with them the warning that practitioners can not be too careful in their sterilization, even when it concerns so insignificant an operation as a puncture of the skin.

THE VALUE OF ANTIDIPHTHERIC SERUM.

Judgment on the value of Behring's antitoxin can not fairly be made from individual impressions of what might have been the course of this or that case of diphtheria if antitoxin had or had not been given, because the possibilities in any given instance are incalculable. Observation and comparison of a long series of cases under as nearly as possible equal conditions reduce the chance of error to a minimum and so form the only safe basis for opinion. When a large number of cases can be collected, the principles for judging the efficacy of antitoxin remain the same as when Roux in 1894 published his celebrated clinical investigations: 1. The disease must be pure diphtheria, bacterially verified. (Antitoxin has no effect on streptococcic membranous croup and but slight effect when there is mixed infection.) 2. The antitoxin must be of definite strength and be given in adequate dosage. 3. The duration of the disease before treatment must be taken account of in estimating the probable effect of antitoxin. Reports which cover the above eminently fair points, unanimously agree in demonstrating the great life-saving qualities of antitoxin when given early and in sufficient dosage. Extensive experiences in the Boston City Hospital,[1] for instance, show in every way wonderful effects from initially injecting 4000 units and repeating every four hours if necessary. The careful statistics of the Chicago Health Department show 8 per cent. of the total number of bacterially verified cases treated on the first day of the disease with a case-mortality of .42 per cent., 24 per cent. treated on the second day with 1.5 per cent. mortality, 35 per cent. on the third day with 3.5 per cent. mortality, 18 per cent. on the fourth day with 11.3 per cent. mortality, 13 per cent. treated later with 23 per cent. mortality. In giving a prognosis or in calculating what part antitoxin played in the outcome of any case it must be remembered that with or without this remedy the prognosis is progressively better for every year childhood advances. Including all cases over 15 years of age treated with antitoxin the death rate is not larger than 3 per cent. The harmlessness of pure antitoxin being abundantly proven and the facts being substantiated that most cases which look like diphtheria clinically are true diphtheria and grow graver in prognosis during every hour left untreated, it follows that it is the safest plan to adopt the advice of the many authorities who early use antitoxin in every suspected case.

2. Deutsche Med. Wochenschrift, Feb. 20, 1902.
1. F. G. Burrows: Am. Jour. Med. Sciences, February, 1901.

POISONS AND DEFECTIVE RENAL ELIMINATION.

In cases of diseased kidneys where elimination through the renal secretion is more or less interfered with, it has usually been stated that poisonous medicines should be administered with more than usual caution for fear that they might accumulate in the blood and cause fatal effects. Such statements have generally been founded upon theoretical and not experimental considerations. For a long time opium was withheld in cases of uremia and other conditions associated with diseased kidneys because of fear that the lessened elimination would lead to poisonous results from the accumulation of the drug in the body. Although Loomis was not the first to employ hypodermic injections of morphin for the cure of uremic convulsions, it was he who especially pointed out the value of such treatment, and his advocacy of it has been largely instrumental in leading to its general adoption. Most clinicians now employ morphin in uremic convulsions without fear of bad results and with confidence that good will follow its use. In this instance the fear which came from false theoretical conclusions was overcome by the practical results of actual experience. Meltzer and Salant[1] have recently published the results of an important study of the effects of strychnin in rabbits after the removal of the kidneys. They have shown that less than the smallest fatal dose—"subminimum"—of strychnin may be administered subcutaneously at proper intervals to rabbits from which the kidneys had been removed without any resulting reaction, although large fatal doses of strychnin are apparently accumulated in the body. Several hypotheses are advanced to explain these phenomena, but none has yet been demonstrated experimentally. Knowing that strychnin is eliminated by the kidneys under ordinary circumstances, it was not unnatural to infer that the removal of the kidneys would lead to an accumulation of the poison in the body with resulting deleterious effects. These experiments show that such is not the case, either because of vicarious elimination assumed by other organs or for other reasons. Similar phenomena are observed when urea is excreted by various organs in cases where the renal tissue is largely destroyed by disease. The observations of Meltzer and Salant show how unsafe it is to conclude that the removal of an organ or the destruction of its function results in the accumulation in the body of the materials usually eliminated by it. In such cases the wonderful power of the remaining tissues and organs to assume the functions of those parts which are removed or rendered inoperative, must not be forgotten. The fear that cumulative effects may result if poisons are administered in the usual doses in cases of diseases of the kidneys has no experimental foundation.

1. Journal of Experimental Medicine, Feb. 5, 1902, 107.

Medical News.

CALIFORNIA.

"Dr." Minnie Wells, Los Angeles, has been convicted of practicing medicine without a certificate from the State Board of Medical Examiners, and has been fined $300. This is her second offense.

German Hospital.—A hospital, to cost $25,000, is to be erected by the First German M. E. Church of Los Angeles. The building will contain 30 rooms and work will be commenced on it by or before May 1.

College Anniversary.—The sixth anniversary of the College of Physicians and Surgeons, San Francisco, was celebrated with a banquet, February 25, at which Dr. Winslow Anderson spoke of the history of the college and addresses were made by members of the faculty and undergraduates.

Berkeley Hospital.—Although the directors of the Berkeley Hospital Association have decided to abandon their project of erecting a hospital, the Prytanean Society of the University of California will, in a measure, carry out the original plans by either erecting a hospital building on the campus or endowing a free room in one of the Oakland hospitals.

DISTRICT OF COLUMBIA.

Transfer of Hospital Control.—Commissioner Macfarland has approved the report made by the Board of Charities upon Senate bill 3363, to transfer the control of the Government Hospital for the Insane, the Freedmen's Hospital and Asylum, and the Washington Hospital for Foundlings to the Interior Department. The Board of Charities reported against the passage of the bill, claiming that such a law would be a step backward in the establishment of the present department of charities.

Medical Society.—At the recent meeting of the Medical Society, Dr. Johnston's paper on grip pneumonia was discussed and Dr. Kober read one on the causation of disease. Dr. Lamb presented specimens and gave the histories of vegetating endocarditis. Drs. Woodward and Lamb jointly presented specimens and gave the history of cases of hemorrhage of the liver in the newborn. The smoker held on the 13th inst. was a success, almost every member of the Society attending and taking part in the relaxation. This was the first smoker ever given by the Society and its success will assure its adoption as an annual feature.

ILLINOIS.

Fifty-four Years in Practice.—Dr. William W. Burns, Polo, now in his 81st year, has been in active practice for fifty-four years.

St. Joseph's Hospital Ready.—St. Joseph's Hospital, Elgin, which has been turned over to the Franciscan Sisters, has been fully equipped and is ready to receive patients to-day.

Banquet to Dr. Helm.—Dr. Clinton Helm, Rockford, was tendered a banquet, February 25, by the Winnebago County Medical Association, at the Nelson House, Rockford, in honor of the semi-centennial of his entry into practice. Dr. Daniel Lichty served as toastmaster, and among the speakers were Drs. David B. Penniman, Argyle; Thomas N. Miller, Rockford; Thomas H. Culhane, Rockford; John F. Snyder, Monroe Center; Emil C. Dudley, Chicago; Robert W. McInnes, Belvidere; Frank H. Kimball, Rockford; Ernest C. Helm, Beloit, Wis.; E. Wyllys Andrews, Chicago, and Clinton Helm.

Chicago.

Dr. Hugh T. Patrick sails for Europe on the *Kronprinz Wilhelm* to-day. He expects to remain abroad for four months, returning about July 1.

"Dr." Mabel Jackman was fined $100, February 22, for illegal practice of medicine, the evidence being secured by two employes of the State Board of Health.

Dr. Fenger Ill.—We regret to learn that Dr. Christian Fenger is seriously ill with pneumonia at his home. Drs. Billings and Favill are in attendance and report slight improvement.

Attending Skiagrapher.—The County Board has elected Dr. Harry J. Haiselden attending skiagrapher to the County Hospital; he will have charge of the *x*-ray apparatus recently installed there.

For Poor Consumptives.—Mr. Charles L. Adams has given $30,000 for the purpose of erecting a home in Denver for needy consumptives, and has promised $20,000 additional provided a second $20,000 is secured. The new home will bear the name of Mr. Adam's wife.

Cook County Clinical School.—In order to provide suitable conditions for rapid growth of the laboratory recently established at the County Hospital, the county officials have decided to incorporate the laboratory and museum into a school, the management of which is placed in the hands of the warden, the president of the county board and the superintendent of public service.

In Charge of Dunning.—Dr. John R. Neely has been chosen to take up the work of placing the county institutions at Dunning on an improved basis, and has been made medical director. He assumed charge, March 1. It is announced that the medical staff will be reorganized and increased to twelve, and that the number of nurses and attendants will also be increased. Dr. Neely is well fitted for this work, and has already won laurels by the excellence of his work in the Surgeon-General's office in Washington, and in the Department of Health of Chicago.

Campaign Against Smallpox.—Several of the railroads entering Chicago have endorsed the plan suggested by the Department of Health for preventing the spread of the disease. This comprises the following features: Vaccination for all employes and reports on the results; immediate notification by conductors when smallpox or suspicious illness is discovered on trains; notification by station agents of cases in their locality; reports by local railroad surgeons on their districts and instructions to them to push the propaganda of modern methods of vaccination; the distribution at stations of the Health Department's "Vaccination Creed," and other literature of that sort; the provision of facilities for disinfection, and the establishment of a central bureau of information in Chicago.

The Health and Deaths of the Week.—Twenty per cent. more deaths were recorded by the Bureau of Vital Statistics of the Health Department for the week ended March 1 than the week previous and 46 per cent. more than in the corresponding week of 1901. The exact figures are 434 one year ago, 529 the week before last, and 634 last week. The annual rates per 1000 of population are 12.87, 15.14 and 18.15, respectively—this latter figure being unpleasantly near the average New York mortality rate. For this city it is the highest on record for the season of the year. The causes of death showing the greatest mortality as compared with the previous week are—with the exception of pneumonia—the chronic diseases, and the result is seen in a 20 per cent. rise in the deaths of the aged, those over 60 years. Nervous diseases show 72 per cent. increase; consumption 46 per cent.; pneumonia nearly 35 per cent.; Bright's disease nearly 32 per cent., and diseases of the heart 30 per cent. There were 16 suicides and 36 other violent deaths—an increase of 53 per cent. over the number in the corresponding week one year ago and of 85 per cent. over that of the previous week.

IOWA.

Eleanor Moore Hospital, Boone, was formally opened with appropriate exercises, February 17.

Hospital Fund Grows.—The fund for the new hospital to be erected at Marshalltown by the Sisters of Mercy now amounts to $8000.

William Woods Hospital.—Mrs. Phebe Ann Cole, Osage, has deeded her property in that city to nine trustees, to be used as a public hospital. It is to be known as the William Woods Hospital in memory of Mrs. Cole's deceased brother.

Personal.—Dr. R. F. Raines, Arcadia, has located in Dixon, Ill.——Dr. Alonzo E. Rodgers, Tipton, has returned to his old location at Stratford.——Dr. Charles O. Grimes, Hayesville, has located in Harper.——Dr. W. Herbert Linder has moved from Stratford to Story City.——Dr. Sylvester L. Clabaugh, Yorktown, has moved to Bedford.——Dr. Joseph H. Sams, Clarion, has been appointed a member of the State Board of Health, vice Dr. John C. Schrader, Iowa City.——Dr. Louis M. Coon, Arion, has gone to Southern Kansas.——Dr. Park A. Findley, Des Moines, has been appointed first lieutenant and assistant surgeon in the Army, and has been ordered to Fort Leavenworth.——Dr. Owen S. Townsend, Blockton, has gone as a medical missionary to China.——Dr. Norman S. Craig, Manchester, has moved to Jennings, La.——Dr. Fred J. Raven, Mason City, has located in Grinnell.——Dr. John V. Littig, Davenport, has gone to Europe.——Dr. T. A. Kreuser, Chicago, has located at Calmar and will also have an office in Decorah.——Dr. W. P. Burke, Iowa Falls, has gone to Europe for a year of post-graduate study.——Dr. William N. Hurst, Blakesburg,

has moved to Oklahoma.——Dr. Anthony H. Vorwerk, Bancroft, has located in Burlington.——Dr. Charles E. Todd, Oskaloosa, has moved to Los Angeles, Cal.

MARYLAND.

Annapolis Emergency Hospital has been incorporated.

Militia Surgeon.—It is reported that a bill has been reported favorably by the House, "providing for the appointment of a surgeon to state militia."

Fund for Johns Hopkins.—The women have started a fund for the benefit of the Johns Hopkins University. It is proposed that every woman in the state contribute one dollar.

Mortality.—For the week ended March 1 the deaths in Baltimore were 201, pneumonia leading with 35, followed by consumption, 19. During February there were 194 deaths from pneumonia.

Dr. William Osler, Baltimore, lectured at the University of Maryland, February 28, on the "Religio Medici" of Sir Thomas Browne, exhibiting nearly all the editions of his works and showing lantern pictures.

Personal.—Dr. Jesse C. Coggins, of the staff of the Maryland Hospital for the Insane No. 1 has returned from a visit to the European hospitals for the insane.——Dr. William J. McDowell, Baltimore, fell on the ice, February 21, and broke his left arm at and above the elbow. The injury is said to be serious.——Dr. S. A. Keene, Baltimore, has been appointed assistant superintendent of public buildings in charge of the court house at a salary of $1200. Dr. Bernard P. Muse has been appointed assistant medical inspector, with a salary of $500, vice Dr. Keene.——Dr. R. R. Crothers, Elkton, Cecil County, had a paralytic stroke, February 21.——Dr. J. Williams Lord, Baltimore, has returned from Cuba.

MASSACHUSETTS.

Emergency Hospital Opened.—The Boston City Hospital relief station at Haymarket Square was opened for service, February 20.

Brockton Hospital Donations.—The endowment fund of the Brockton Hospital has been increased $15,000, of which $10,000 was donated by Mr. Daniel S. Howard and about $5000 received from the George O. Stevens estate.

Keep Memorial Hospital.—Mrs. J. W. Keep has offered to erect and equip a building in memory of her husband on the Westfield Hospital grounds, at a cost of not exceeding $15,000 for the care of contagious disease patients, to be known as the Keep Memorial Building.

Millions for Harvard.—Harvard University Medical School needs $4,950,000 to carry out the plans projected. Of this all but $294,000 has been contributed and the trustees still have four months in which to secure the balance. Mr. James Stillman, New York, has contributed $100,000, and the faculty has subscribed $75,000.

New Salem Hospital.—The Hospital Association of Salem is about to erect 12 new buildings, which will accommodate 100 patients. The completed hospital will consist of an out-patient department and accident ward, maternity and children's ward, men's surgical ward, men's medical ward, women's surgical ward, women's medical ward, operating wing, annex wards, and a two-story private ward.

MICHIGAN.

Epidemics.—Detroit has an epidemic of mumps, and measles is overspreading Albion.

Dr. Kinyoun Resigns.—Surgeon Joseph J. Kinyoun, U. S. Marine-Hospital Service, stationed at Detroit since his transfer from San Francisco, a year ago, has resigned, and will reside in Philadelphia and devote himself to bacteriologic work.

Founders' Day at Ann Arbor.—The celebration of the founding of the medical department of the University of Michigan, was held February 23, in Sarah Caswell Angell hall, and addresses were made by Dean Victor C. Vaughan; William A. Evans, president of the Students' Medical Association; Drs. Albert B. Prescott and J. Carl Huber.

War on Quacks.—Committees from the Wayne County Medical Society, the Detroit Medical Society and the Homeopathic Practitioners' Society, met March 3 to plan a crusade against the quacks of Detroit, who number about forty. Dr. B. D. Harison, secretary of the State Board of Registration, will co-operate with the joint committees in the work.

Sloane Sues Society.—Dr. J. Byron Sloane, on March 1, entered suit against the Detroit Medical Society for damages for his expulsion from that body because of alleged breaches of the medical code of ethics. Dr. Sloane denies that the charges or alleged offenses constitute a breach of the code and says that his formulas and prescriptions are always on file, and that he has not patented a surgical instrument, but has patented an appliance which he has used for the past two years in the treatment of consumptives and others for throat and lung troubles. His attorney says: "We propose to find out whether or not the real merit of a physician, made known to the public by and through the public press, is derogatory either to the medical profession or the public at large, and whether or not the press of the community is to be muzzled."

MINNESOTA.

Hospital Burned.—The residence and private hospital of Dr. Elias P. Case, Waterville, has been completely destroyed by fire. The patients were all removed in safety. The loss exceeds $10,000, partially covered by insurance.

Street Car Disinfection.—The St. Paul Health Department is to disinfect all street cars in that city every night. The Health Commissioner of Minneapolis does not consider that there is any necessity of joining with the St. Paul department in this particular prophylactic line.

Physician Freed.—Dr. Thomas J. Pierce, Duluth, who several months ago was found guilty of performing a criminal operation, but in whose case the Supreme court ordered a new trial, has had the criminal charge against him dismissed, the complaining witness having disappeared.

Minneapolis Hospitals Dedicated.—The Norwegian Lutheran Hospital was dedicated with appropriate ceremonies, February 23, and opened its doors to receive patients on the next day. Dr. Edward Boeckmann is the chief of the medical staff. The hospital has, at present, a capacity of 35.——The new Swedish hospital was dedicated on the same day. This hospital will have cost, when completed and equipped, about $50,000.

MISSOURI.

New Medical Building.—The contract for the medical building for the State University of Columbia has been awarded for $29,500.

Hospital Saturday and Sunday Association.—At the annual meeting of this Association of St. Louis it was reported that $24,945 had been realized at the annual collection.

The Enno Sander Banquet.—Dr. Enno Sander, St. Louis, on the eve of his 80th birthday, was tendered a dinner by pharmaceutical friends of St. Louis and Chicago, February 26. Albert E. Ebert, veteran druggist of Chicago, and president and historian of the Chicago Druggists' Association, acted as toastmaster.

Antitoxin Investigation Aftermath.—The logical results of the antitoxin investigation in St. Louis are now taking place. The city authorities have placed the responsibility upon Dr. Ravold, and his resignation followed immediately. There is no question of Dr. Ravold's ability as a bacteriologist, and it was unfortunate, to say the least, that the conditions in the city laboratory made such errors possible. The city should never have undertaken to make antitoxin without a thorough equipment. The bacteriologist was not an independent officer of the Board of Health, but was rated simply as an employe. Now it is proposed to establish the office of "City Bacteriologist," to which the appointee shall give his whole time. Following the conclusion of the investigating committee's work, suits for damages against the city are being instituted by the relatives of the dead children. One suit for $20,000 is now pending.

NEW YORK.

Canandaigua to Have Hospital.—Mrs. F. F. Thompson has agreed to erect a public hospital in Canandaigua to cost $50,000 and to endow it with $50,000. Two other persons have pledged $25,000 each to the endowment fund.

State Vital Statistics.—The annual report of the State Commissioner of Health states that during 1901, 139,389 births, 64,680 marriages, and 131,788 deaths were recorded. The death rate was 18 per 1000. The mortality was 7500 in excess of the average of the past five years, but the rate was the same as that of 1900. The infant mortality is unusually low, being 3500 less than in 1900 and 2500 less than the average of the past five years.

Physicians Exonerated.—The Commissioner of Public Safety has investigated the report that Drs. Winfield S. Hale and E. Hudson Rider of Albany had refused to attend an in-

digent poor sick call, February 17, at the request of a patrolman and has found that the order was misunderstood by the physicians, who supposed the call was for them to attend a private case, which neither of them cared to accept. Therefore the commissioner has ordered that the said physicians be and they are hereby exonerated from any blame in the matter.

State Hospitals.—On February 18 Governor Odell signed the bill abolishing the boards of managers of the state hospitals for the insane. These hospitals are the Manhattan Hospital and the Long Island Hospital, in New York; the Hudson River Hospital, at Poughkeepsie; the Homeopathic Hospital, at Middletown; the Matteawan Hospital, at Matteawan; the Utica Hospital, at Utica; the Willard Hospital, at Ovid; the St. Lawrence Hospital, at Ogdensburg; the Buffalo Hospital, at Buffalo; the Rochester Hospital, at Rochester, and the Gowanda Hospital, at Gowanda. The boards of managers of these institutions will retire April 1 and the State Commission in Lunacy will then assume charge of the hospitals. The Governor will appoint boards of visitation for each of the hospitals.

Liability of Hospitals.—A bill introduced in the senate by Mr. Grady declares that no hospital incorporated under the laws of this state, sustained in whole or in part by charitable contributions or endowments, shall be liable for the neglect, carelessness or want of skill, or for the malicious acts of any of its officers, agents or employes, in the management of, or in the care or treatment of any of the patients or inmates of such hospital. Nor shall it be lawful for any such hospital to enter into any agreement whereby liability shall be incurred for such neglect, carelessness, want of skill or malicious acts. This bill is not to be construed as to impair any remedy under existing laws which any person may have against any officer, agent or employe of any such hospital for any wrongful act or omission in the course of his official conduct or employment.

Buffalo.

Check to Tuberculosis.—The Buffalo Society for the Prevention of Tuberculosis is endeavoring to enlist the co-operation of local clubwomen in its work, and has arranged for a number of addresses to be delivered before various clubs on the subject.

Nurses as Health Inspectors.—The health commissioner is considering the advisability of asking the Common Council to empower the four district nurses of the District Nurse Association to act as inspectors for the health department. The nurses ask no pay for exercising such authority.

For a Quarantine Hospital.—A bill has been introduced in Albany to allow the city of Buffalo to bond itself for $50,000 for the purchase of lands to be a site for a new quarantine hospital. The funds are to be at the disposal of the common council and mayor, by whom the site is to be selected.

Personal.—Dr. Edward A. Southall, University of Buffalo, 1898, a member of the Board of Health of Manila, P. I., has been appointed a member of the medical examining and licensing board of the Philippine Islands.——Dr. Walter L. Savage has been appointed U. S. Government medical examiner of immigrants at this port.

Gratwick Laboratory Opened.—The new Gratwick Laboratory was formally opened, February 22. The staff of the laboratory is composed of Dr. Daniel Lewis of New York City, State Commissioner of Health; Dr. Roswell Park, director; Dr. Harvey R. Gaylord, pathologist in charge; G. H. A. Clowes, Ph.D., chemist; Dr. Herman G. Matzinger, bacteriologist; Dr. Irwin P. Lyon, statistician; John E. White, Ph.B., and George Austin, assistants in chemistry; Miss C. A. McClay, secretary, and Miss Alice G. Owen, assistant in microscopy.

New York City.

Borough Pest Hospitals.—Health Commissioner Lederle is perfecting a plan to build five new isolation hospitals, one in each of the boroughs of Greater New York.

German and Seney Hospitals, Brooklyn, have become members of the Hospital Saturday and Sunday Association and hereafter will share in the distribution of the receipts.

Diphtheria or Smallpox.—A Brooklyn physician who diagnosed a case of smallpox as diphtheria and who, when convinced of his error, neglected to inform the health authorities, has been fined $50.

Donation for Neurological Ward.—Mrs. Hannah N. L. Sherman of Lawrence, L. I., has given $25,000 to the Post-Graduate Hospital and College for the partial endowment of a new ward for women and children afflicted with nervous diseases.

Hospitals Benefit.—As a result of the German Charity Ball, January 23, there remains $10,000 to be distributed among the hospitals and other charities of the city. The German Hospital receives $1700; St. Francis Hospital, $1050; St. Mark's Hospital, $1050; Policlinic, $1050, and the West Side Dispensary, $900.

German Hospital Legislation.—A bill introduced in the senate by Mr. Elsberg authorizes the city to exchange lease now held by the German Hospital and Dispensary to a grant of the lands upon which the hospital buildings are erected so as to enable the said hospital to convey the whole or any part of said premises in fee simple absolute or to lease said premises or any part thereof for a term of years, the proceeds of such sale or the income from such lease to be devoted to the maintenance and support of said hospital.

OHIO.

Physician's Residence Burned.—The house and office of Dr. Samuel G. Herrington at Rawson was burned to the ground, February 21. The loss exceeds $7000, with about $3000 insurance.

Semi-Centennials.—Two of Starling's alumni, Drs. David W. Henderson of Marysville, and Dr. Lafayette Woodruff of Columbus, celebrated the fiftieth anniversary of their graduation, last month.

Dr. A. F. Shepard, assistant superintendent of the Toledo State Hospital, was to-day, February 26, elected superintendent of the Dayton State Hospital. The salary is $1200 a year, residence and other accommodations, and an additional $400 as clerk of the board.

Memorial to Fellow Student.—The members of the graduating class of Starling Medical College, Columbus, have published a very neat memorial souvenir of their class president, Orville Michael Dyson, whose death occurred Dec. 12, 1901, at Pleasant City, Ohio.

Condemnatory Resolution.—The Marion County Medical Society has adopted the following resolution:

It is the consensus of opinion of the Marion County Medical Society and other physicians of the city and county, that Senator Harding misrepresents 99 per cent. of his constituents in this district, and that we condemn it and protest against his action on the "Demuth" bill as reported in the daily press of Feb. 18, 1902.

Further, That he misrepresents all religious denominations, except "Dowieites and Faith Cures."

PENNSYLVANIA.

Dissecting Room Fire.—A blaze in the dissecting room of the West Penn Medical College, Pittsburg, February 23, caused damage to the extent of $1500.

Jewish Hospital.—The Hebrew Ladies' Hospital Aid Society of Pittsburg has purchased a site for $10,000 on which it proposes to erect a hospital to cost $50,000; the hospital is to be non-sectarian.

Workingman's Hospital.—The president of the United Mine Workers of the Pittsburg district has received an offer from Mr. Andrew Carnegie of $50,000 toward the erection of a hospital for workingmen.

Philadelphia.

Dr. Leidy Decorated.—The French government has honored Dr. Joseph Leidy, Jr., with the insignia of *Officier d'Instruction Publique*, for services rendered during the exposition of 1900, where he represented the United States on the International Jury of Hygiene.

Deaver Dines Society.—Dr. John B. Deaver gave an informal dinner to the members of the Surgical Society of the University of Pennsylvania which bears his name, at the Fifth Street Rathskeller, February 14. About 175 were present, and Dr. G. G. Ross acted as master of ceremonies.

The Righter Case.—In the medicolegal case of Mrs. Nugent against Dr. Harvey M. Righter (previously reported in THE JOURNAL) the County Medical Society has appropriated $200 toward the defense of Dr. Righter. Many individual members volunteer to subscribe sufficient to carry the case, if need be, to the court of last resort.

The W. W. Keen Surgical Society held its annual banquet, February 26. Dr. Keen sent greetings from abroad, and Dr. J. Chalmers DaCosta was installed as guest of honor. Dr. Hobart Amory Hare responded to the toast "High Ideals in Medicine"; Dr. W. L. Rodman to "Reciprocity Between State Examining Boards." Dr. R. H. M. Dawbarn, New York, previously addressed the society and their friends.

German Hospital Banquet and Musicale.—On February 28, a banquet and musicale were given and addresses made by Dr. C. J. Hexamer, the Mayor and others, in celebration of the

40th anniversary of the Ladies' Aid Society of the German Hospital. The society has nearly 900 members, pays yearly $200 for the maintenance of a free bed in the German Hospital, and is now energetically engaged in raising $5000 for the establishment of another free bed.

Rush Hospital.—At the annual meeting of the Corporation of the Rush Hospital for the Treatment of Consumption and Allied Diseases, trustees were elected, including Drs. James T. Mellor Tyson. The latter was also elected secretary of the trustees. The following medical staff was elected: Consulting physicians, Roland G. Curtin, John H. Musser, James C. Wilson, J. P. C. Griffith; visiting physicians, Thomas J. Mays, S. Solis Cohen, T. Mellor Tyson; otologist, B. Alexander Randall; surgeon, Charles W. Dulles; pathologist, William S. Newcomet; laryngologist, Henry J. Off; ophthalmologist, Wendell Reber; physicians to the out-patient department, John D. McLean, Charles A. E. Codman.

GENERAL.

Savannah Marine Hospital.—The Senate Commerce Committee has reported favorably on Senator Clay's bill appropriating $100,000 for the purchase of a site and the erection of a marine-hospital at Savannah.

Manila Prepared for Plague.—The Health Department of Manila, P. I., is making comprehensive and commendable preparations to resist a possible outbreak of plague. Five to six hundred rats are captured daily, while numerous others are poisoned. Tents and ambulances are ready in the hands of the sanitary inspectors.

Colorado Not Averse to Consumptives.—Owing to the fact that repeated statements have been made that Colorado has seriously considered quarantining against consumptives, it is deemed but just and fair that the following statement, by past or present officers of the State Board of Health and State Medical Society, be published:

We hereby certify on our honor as professional gentlemen:

1. That so far as we are aware, no member of the Colorado State Board of Health ever proposed the subject of preventing tuberculous persons from entering the state.

2. That so far as we are aware, no member of the legislative or executive branch of the State of Colorado ever suggested such a course.

3. That there is no law to that effect on the statute books of the State of Colorado, nor so far as we know has any such law ever been suggested by any responsible citizen of the state.

4. That so far as can be ascertained, there does not now exist, nor has there ever existed, any ordinance to that effect in any city or town in Colorado, nor has there been any suggestion by those in authority, or by any responsible citizen that such an ordinance be passed.

5. That so far as we can learn, there does not now exist, nor has there ever existed, any regulation of any board of health in the State of Colorado covering the subject of quarantining against consumptives, nor has any such regulation been suggested by any responsible citizen of the state.

6. That on the contrary, in February, 1900, the Colorado State Board of Health issued a circular containing the following: "That this climate has saved the lives of many who have come early can not be doubted. There is no need to talk of quarantining against consumption. Such a course is both unnecessary and impracticable. Doubtless, many persons with advanced tuberculosis should not be sent here, but for those who can be benefited by coming, Colorado should have nothing but a warm welcome."

7. That we know of no proposition of the sort mentioned by any one in Colorado, and that all of us who sign this paper have held responsible sanitary positions, and that we have persistently and constantly stated that no such measures are necessary.

[Signed.] Drs. G. E. Tyler, Hubert Work, J. N. Hall, Henry Sewall, L. E. Lemon, Wm. P. Munn, Leonard Freeman, A. A. Clough, and W. H. Campbell.

Smallpox.

Philadelphia: There were only 62 new cases of smallpox reported for the week ended March 1, one less than for the preceding week. The health authorities believe that they have the disease under control.

New Jersey: In Camden there are only 25 cases in all, most of which are in the Isolation Hospital. The special vaccine physicians have been discharged. They vaccinated 7000 persons at a cost to the city of $3500.

Baltimore: Three of the smallpox cases have been discharged cured from the Quarantine Hospital, leaving ten still there.

Ohio: Dr. David H. Miller, Newark, charged with treating a case of smallpox—his wife—in November last, without reporting same to the authorities, was recently tried before a jury in probate court. The secretary of the State Board of Health and the physician employed by the City Board of Health to attend the cases of smallpox in Newark during October, November and December, testified that the patient had smallpox. Two other physicians called to see the patient testified that they believed she had smallpox. Defendant testified that the disease was not smallpox. The jury agreed in acquitting the defendant.

New York: In the annual report of the Commissioner of Public Health, considerable space is devoted to the prevalence of smallpox during the year. There were 110 places in the state in which one or many cases occurred, there having been during that time 1100 cases with 19 deaths outside of New York City, 1982 cases with 426 deaths in New York City and the maritime district. At the end of the year smallpox existed in sixteen localities, in all of which there was but one case, except at New York and Buffalo, where it was declining in prevalence, at Binghamton and Watertown, where there were several cases, and in lumber camps in the vicinity of Tupper Lake in the Adirondacks, which region, from its exposure to the province of Ontario, from which the cases have come, is the present chief source of concern.

Illinois: The smallpox situation in Chicago affords a refreshing contrast to almost every other part of the country. Only two new cases of the disease were discovered during the week, while 3 were discharged recovered, from the Isolation Hospital, leaving 20 known cases all told in the city. Neither of the new cases had ever been vaccinated; one was contracted from a supposed case of chicken-pox and the origin of the other is as yet unknown. Statistics compiled in the office of the State Board of Health show that since February 1 last smallpox has been reached from 162 localities in 65 counties of the state. Officials of the Board state that the foothold gained by the disease has resulted largely from lack of strict quarantine, some physicians in certain localities where the contagion appeared for the first time terming it chicken-pox, Cuban itch, or Illinois scratches. It is found that where vaccination has been general, few reports of the disease have been received and that where vaccination has been enforced after an outbreak, the spread of the disease has been invariably checked.

Nebraska: The State Board of Health has entered on an educational campaign. It has issued a circular and the "vaccination creed" recently formulated by Dr. Reynolds, of Chicago, is being distributed through the schools of the state.

CANADA.

Obituaries.—Dr. John Coventry, Windsor, Ont., died on February 22 from pneumonia.——Dr. David Roberge, of Montreal, is dead, aged 32, from pneumonia. He was a graduate of Laval University and for some time after graduation served as house surgeon at the Notre Dame Hospital.

Provincial Board of Health.—The new Board of Governors of the College of Physicians and Surgeons of the Province of Quebec has just had elected to membership the following university representatives: University of McGill, Drs. Craik and Lafleur; Laval University, Quebec, Drs. Simard and Catellier; Laval University, Montreal, Drs. E. P. Lachapelle and Demers; University of Bishop's College, Montreal, Drs. F. W. Campbell and J. H. McConnell.

Undergraduates' Medical Society of McGill'.—This Society was organized in 1879, through the efforts of Professor Osler and Dr. Buller. A fine new reading room has recently been put in order with all the principal medical and scientific journals and the leading daily papers. Its support is assured through the action of the medical faculty since 1886 collecting a dollar from each student as part of his yearly fees. A beautiful tablet has recently been erected by members of the classes of 1901 to 1904 to the memories of two former students: Harold L. Borden, B.A., of Canning, N. S., and A. Patrick O'Reilly, of Hamilton, Ont., who died in active service in South Africa, in 1900.

Montreal Medico-Chirurgical Society.—This Society, live and progressive, is entering upon a new era of prosperity. During the past year fine new commodious quarters have been secured in the West End Branch of the Bank of Montreal. They comprise a large meeting hall, nicely and comfortably furnished and capable of seating 125 persons. Adjoining is a coat room and reading room, with a stock room for the accommodation of the library and a committee room. In the reading room all the important medical journals are kept on file. The rooms are in charge of an attendant, and are kept open from 2 to 6 p. m., and from 8 to 11 p. m. The Society will extend its advantages in the future to non-resident members.

Medical Acts (Extension Bill) and Canadians.—General Laurie, a member of the Imperial House of Commons, who some years ago was a member of the Canadian House of Commons, has introduced again into the Imperial House his bill bearing the above title. General Laurie was first prompted to introduce this measure on account that "Surgeons of the

highest standing in Canada and holding commissions from His Majesty in the militia volunteered for service in South Africa; but the War Office refused to accept such service on the ground that it was contrary to the Medical Act of 1858 to permit a colonially trained surgeon to attend professionally to British troops." The object of the bill is to remove this disqualification.

Dominion Registration.—Dr. Roddick, M.P., has re-introduced his bill into the Dominion House of Commons. The changes in the measure which received the endorsation of the Canadian Medical Association at the last annual meeting at Winnipeg refer particularly to the representation on the proposed Dominion Medical Council which is to be on the basis of population. Dr. Roddick has asked that when the bill receives its second reading it be referred to a special committee of the house, to be composed of all the members who are physicians and two or three prominent lawyers. When the bill is before this special committee delegations of prominent medical men will proceed to Ottawa from all of the provinces of the Dominion; and a determined effort will be made to have the bill ultimately passed through both Houses of Parliament during the present session.

Bill to Amend the Ontario Medical Act.—The bill introduced into the Ontario legislature by Dr. Jessop to do away with the homeopathic and college representation on the Ontario Medical Council has aroused the ire of the senate and medical faculty of Toronto University. An elaborate memorandum has been prepared by the Chancellor, Sir William Meredith, and presented to the Minister of Education on the subject. This memorandum takes exception to the bill as follows: 1. It excludes from the body entrusted with fixing and determining the standard of medical education and prescribing the curriculum of studies those who, by reason of their vocation, as well as training, and experience, are, if not best fitted, at least specially qualified for performing those duties. 2. It hands over to a practically irresponsible body the entire and absolute control of medical education, and creates a close corporation or guild. 3. It imposes on the universities and colleges engaged in the work of medical education the obligation of following the curriculum of studies prescribed by the Council without having any voice in the framing of it. 4. It violates the compact entered into with the universities and teaching bodies by which they were given representation on the Council in consideration of their giving up the right to confer degrees or diplomas in medicine and surgery, entitling the possessor of them, without further examination, to practice upon obtaining his license or becoming registered.

FOREIGN.

Prof. Nil Filatow, the specialist in children's diseases, died at Moscow, February 8, in his 56th year.

Extermination of Rats.—The German Imperial Council of Health has appointed a committee to report on measures to be adopted for the extermination of rats as the most dangerous means of conveyance of the plague, especially on ships. Robert Koch is the chairman of the committee.

The International Congress of Dermatology.—This congress has been postponed till 1904, to avoid conflicting with the International Medical Congress at Madrid in 1903. Prof. E. Lesser will preside over the congress, which is to be held at Berlin in September, 1904. Dr. O. Rosenthal, Berlin, is the secretary.

LONDON LETTER.

The Smallpox Epidemic.

The number of cases in hospital on February 15 was 1185, against 870, 1135 and 1102 at the end of the three preceding weeks; 390 new cases were admitted during the week against 204, 499 and 287 in the three preceding weeks. In the House of Commons, Mr. Walter Long, President of the Local Government Board, stated that the number of successful primary vaccinations were as follows: 1898, 500,314; 1899, 669,349; 1901, 677,625. The number of certificates granted to "conscientious objectors" (whereby the penalty for non-vaccination is avoided) were: 1898, 20,341; 1899, 32,345; 1900, 39,839; and for the first half of 1901, 19,252. In the House of Lords, Lord Newton brought in a bill to abolish the "conscientious objector." He pointed out that the legal recognition of this individual had caused 100,000 children to be unvaccinated in the last three years. The bill was defeated in consequence of the opposition of the government, who, while admitting the benefit of vaccination, were unwilling to disturb the compromise of the act of 1898.

Casualties in the South African War.

A return has just been issued which shows that the following are the total casualties up to the end of 1901, when the forces amounted to 237,800 men: Killed, 5,231; wounded, 20,937; died of wounds, disease or accidentally killed, 13,733; disbanded and discharged in South Africa, 6,683; in hospital, 11,720.

The Investigation of Cancer.

We have previously announced in THE JOURNAL the formation of a scheme for the investigation of cancer which took its origin from the expression of the King, when he received the foreign delegates at the Tuberculosis Congress, of the necessity for checking this dire disease. The following resolution of a special committee was unanimously adopted by the Council of the Royal College of Surgeons on February 13, and at an extraordinary meeting of the Comitia of the Royal College of Physicians on February 18. This committee recommends the two Royal Colleges to consider and develop a scheme for investigation into the causes, prevention and treatment of cancer, and that for this purpose delegates be appointed by the two Royal Colleges (who shall have power to add to their numbers) to draw up a detailed scheme. In pursuance of this resolution the following delegates were appointed to draw up a detailed scheme for systematic investigation into the causes, prevention and treatment of cancer, viz.: As representing the Royal College of Physicians, Sir William Church, Sir William Broadbent, Dr. H. Pye-Smith, Dr. Whipham, Dr. Payne, Dr. Rose Bradford and Dr. Tatham; as representing the Royal College of Surgeons, Mr. H. G. Howse, Mr. J. Langton, Mr. H. Morris, Mr. H. T. Butlin, Mr. Watson Cheyne, and Mr. R. J. Godlee.

Ligature of Left Carotid for Aneurysm of the Arch of the Aorta.

At the Royal Medical and Chirurgical Society, Christopher Heath read an important paper on this subject. He reported two cases, which were the sixth and seventh on which he had performed the operation. The sixth case was in a woman, aged 61, who was admitted to hospital in July, 1890, with all the symptoms of aneurysm of the arch of the aorta. She was kept in bed and given large doses of iodid of potassium for many weeks, but no alteration in the pulsation resulted. She always sat up in bed with the knees drawn up and her head resting upon them. On attempting to lean back the dyspnea increased and inspiration became stridulous. The left carotid was tied without an anesthetic, on November 16. On November 19 the respiration was no longer noisy and the patient was able to recline against her pillows. On November 22 she was able to sleep for seven hours consecutively. In January, 1891, there was some return of pain in the right shoulder. In February the pulsating tumor above the sternum had decreased and the patient was able to lie and sleep in any position. She continued to improve. On September 3 the pulsating tumor could be just felt above the clavicle. She died suddenly, November 29. The seventh case was that of a man, aged 36, who was admitted to hospital on Nov. 4, 1898, with aneurysm of the arch. The physical signs were well marked and included tracheal tugging and a blowing systolic sound over the aneurysm. During November, December and January he had severe attacks of pain in the shoulder, back and neck. The aneurysm at first diminished, but in January it increased and definite swelling and pulsation appeared beneath the pectoral below the right clavicle. Mr. Heath tied the left carotid with silk under eucain B. on Jan. 18, 1899. On January 20 the pulsation was distinctly less marked and daily improvement followed. On February 6 the patient had pain in his chest and next day his temperature rose to 103 and he rapidly developed symptoms of acute phthisis and died on March 21. The aneurysm gave no trouble and was daily less evident.

Four specimens were shown, one from a man on whom Mr. Heath tied the left carotid in 1872, and who greatly improved for a twelvemonth, when he resumed his hard agricultural labor and the aneurysm began to grow and eventually burst four and a half years after the operation. The second specimen was from a man, aged 38, whose left carotid Mr. Heath had tied on March 8, 1890, and who died suddenly on May 12. The aneurysm was filled with laminated clot. The third specimen, an aneurysm the size of an orange, almost completely filled with laminated clot, was from the sixth case. The fourth specimen was an aneurysm of the arch the size of a clenched fist, with a second small aneurysm of the root of the innominate. Both were nearly filled with laminated clot, the center of the larger being occupied with soft clot. These were from the seventh case. Mr. Heath maintained that ligature of the left carotid undoubtedly produced an immediate effect upon

aneurysm of the arch. He thought that the ultimate solidification of the aneurysm, though its only method of cure, accounted for the sudden deaths which occasionally occurred some months later, owing partly to pressure effects and partly to the induction of syncope.

Chronic Edema.

At the Medical Society of London, Dr. Essex Wynter showed two cases of this comparatively unrecognized condition. A single woman, aged 23, enjoyed good health till November, 1900, when she developed a cough which lasted through the winter. For the past ten years she had complained of attacks of misty vision lasting one or two minutes, which had lately increased in frequency. Three years ago there was some swelling of the lips and tongue noticed, chiefly on rising, and lasting two months. Swelling of the face and legs came on gradually and was notably worse since May, 1901, especially after walking or long standing, the legs being at times so stiff she could only flex them with difficulty. In the mornings the swelling was softer and less distinct. The swelling of the face was noticed a few months earlier than in the legs, especially about the right eye. The general health appeared to be unaffected and there had been no pain. The thoracic and abdominal organs appeared to be normal. The urine contained no albumin. Temporary improvement in the swelling of the face and legs occurred under massage. Thyroid extract was given without effect. The second case was a girl, aged 17. About three months ago the face and hands were noticed to be swollen on rising and enlargement of the legs increased. The swelling increased daily and became more persistent. Recently she had noticed some dyspnea on exertion and polyuria. The face was pale and uniformly swollen, the eyes being half closed; the hands also were swollen, but not distorted; and dimples over the knuckles were well marked. The legs were uniformly enlarged and very firm, only pitting slightly on sustained pressure, the skin not being white or shiny. The thoracic and abdominal organs appeared to be normal. The urine was pale, clear, alkaline, of 1009 sp. gr., and free from albumin. While lying in bed there was a marked improvement, but on the patient getting about the measurements of the body returned nearly to their original dimensions, but were not so hard.

PARIS LETTER.

Operation on the Hindoo Twins by Dr. Doyen.

An operation which has caused much comment in Paris is that which Dr. Doyen has just performed on the Hindoo twins of the Barnum and Bailey circus. Dr. Doyen, whose name is undoubtedly familiar to many American physicians, is the man who rushed across France to Rennes at the time of the Dreyfus affair to take an *x*-ray photograph of the bullet which had been fired at Labori and had lodged in his back. Professor Reclus was, however, the regular surgeon of the family and refused to have the bullet sought after or extracted. Dr. Doyen is now at loggerheads with another professor, this time the professor of infantile clinical surgery, Dr. Kirmisson. As the Hindoo twins were showing signs of failing health, they were taken to the new Trousseau Hospital, where they were found to be suffering with incipient consumption, and Doodica (the name of the other is Radica) presented symptoms of tubercular peritonitis. Professor Kirmisson was called into consultation by Dr. Guinon, but refused to operate unless he had a written authorization from the foster mother or the agent of Barnum and Bailey. The former would only give it on condition that she could assist at the operation and have it cinematographed. To this Dr. Kirmisson refused to consent, so the foster mother took the twins to Dr. Doyen's clinic, and the operation was carried out on February 9. The operation lasted in all only twenty minutes and Dr. Doyen has given the following account, which is printed in the *Echo de Paris*:

> The two sisters were placed on a table covered with a sterilized cloth. I placed myself to the right and cut the skin above the connecting ligament. A certain amount of cartilage was cut through with a lancet. Two little veins alone had to be tied. The peritoneum was then cut and the hepatic band which always exists in such cases was laid bare. There were certain adherences on the side of Doodica, who, as the diagnosis had shown, was suffering from tubercular peritonitis. The hepatic bridge was 7 centimeters long and 4 centimeters in diameter. It seemed very vascular. This was a case for the employment of the method of hemostasis which I have invented, by the crushing of the hepatic pedicles with my double-lever forceps which gives instantly, under an effort of the hand, a pressure of 2000 kilograms. The hepatic pedicle was superficially fibrous. The crushing was carried out with great prudence, and succeeded so well that two ligatures of catgut *en chaine* sufficed for Radica. The pedicle, which was very short, was cut between this first ligature and Doodica, and three voluminous arteries were immediately seized with pincers and tied up. The hemostasis, on the side of Doodica, was completed by two ligatures *en chaine*. The back part of the peritoneum, that on the side of Doodica, and then the skin, were severed with a few cuts of the scissors. Doodica, liberated from her sister, was carried to a neighboring table, a compress was placed on the wound, and the skin temporarily fastened over it with pincers. The operation was then terminated on Radica, the hemostasis verified, and the abdominal partition was sutured, leaving a morsel of sterilized lint to drain the wound.

The operation itself was cinematographed. This operation has only been carried out once before by Dr. Chapost-Prevost in Brazil. One of the patients died. For the first few days the condition of both Radica and Doodica steadily improved, but on Sunday morning Doodica died suddenly, after having shown symptoms of embolism. Dr. Doyen and the authorities at the Trousseau Hospital have had a dispute in the papers. Dr. Guinon contradicted the statement made by Dr. Doyen that the twins had been worried by medical students examining them, and Dr. Doyen said that when they arrived at his clinic they were found covered with vermin and affected with thrush.

Correspondence.

Papers Fraudulently Obtained from the Department of Medicine and Surgery of the University of Michigan.

ANN ARBOR, MICH., Feb. 26, 1902.

To the Editor:—The medical profession may possibly be interested in a brief statement of the following facts: Some years ago I received from a physician at a small town in northern Michigan a letter stating that Dr. Emma W. Mooers, who graduated in the Department of Medicine and Surgery of the University of Michigan in 1884, was practicing medicine in an irregular way in his place. I knew that Dr. Mooers was pathologist to the McLean Hospital at Waverly, Mass., and I wrote my medical friend that the person impersonating Dr. Mooers was a fraud. Papers were issued for her arrest, but before they were served she left the town. Soon after this, the fraudulent Dr. Mooers turned up in Chicago, and I made another attempt to secure her arrest, but again she evaded the officers of the law and for some years disappeared. A few months ago I learned that she had registered under the name of E. W. M. Cory before the State Board of Medical Examiners in Colorado, and I requested Dr. Van Meter, secretary of their board, to secure her arrest. [See THE JOURNAL, March 1, p. 590, Colorado News.] This was done, and the woman was tried, convicted and sentenced to the penitentiary for one year. The judge allowed her to go on parole instead of being sent to the penitentiary, but she is to report once a month, and if she leaves the state she becomes a fugitive convict.

Now, the paper that this woman had was a certificate signed by James H. Wade, secretary of the University of Michigan, stating that Emma W. Mooers had graduated in the Department of Medicine and Surgery of this University in 1884. The fraudulent woman had written to Mr. Wade that she was Emma W. Mooers, who graduated in 1884, and that her diploma had been destroyed by fire, and requested a certificate of graduation. The secretary looked over the list of graduates for that year, and, finding the name in this list, sent the certificate. I report this case because, in the first place, the impersonator has given great annoyance to the real Dr. Mooers, whose work has been of the highest character and whose conduct has always been strictly professional; and in the second place, it shows that university authorities, at least the authorities of this university, have in the past not exercised sufficient care in issuing certificates of graduation to those who have claimed that their diplomas have been destroyed.

Thanks are due to Dr. Van Meter, of the Colorado State Board of Medical Examiners, and to the assisting prosecuting attorney, Mr. Smith, of Denver, for the energy with which they pushed this case. It is possible that the University of Michigan, through its secretary, has issued certificates of graduation to others who do not deserve them, and I desire to call the attention of state boards of medical examiners to this possibility. It is also possible that other institutions have been imposed upon in like manner. Dr. Van Meter, in a letter to me concerning this matter, suggests that it might be desirable for each diploma to contain some description of the person to whom it is granted in order that such a person may be recognized. This is a matter worthy of consideration.

The second instance of obtaining fraudulent papers is quite as serious as the one referred to above, although quite different in character. Last year the medical faculty of this university expelled one of its students on account of gross immorality. He was furnished with a statement of his class standing, and across this statement in red ink was written "Expelled for gross immorality." This statement was signed by the dean and secretary. Some time later, I learned that this man had entered Rush Medical College. I therefore wrote to Dr. Dodson, dean of that school, asking why he had accepted the man. Dr. Dodson sent me the credentials which the young man had presented him. The young man had had printed a duplicate of the statement given him; had made his class standings all right; and had omitted the statement of the cause of his expulsion. More than this, he had forged the names of the dean and secretary of this school. When these facts were made known to Rush Medical faculty, the young man was immediately expelled from that school. Such an experience as this indicates that the officials of medical schools should exercise more care in accepting credentials from other schools. Respectfully yours, VICTOR C. VAUGHAN, M.D.

County Society Membership.

KINGSTON-ON-HUDSON, Feb. 24, 1902.

To the Editor:—THE JOURNAL of Feb. 22—page 525—contains a letter from Dr. William P. Munn, of Denver, concerning the reorganization of state medical societies. The point to which he takes exception is that in all cases membership in the county society shall constitute membership in the state society, and that membership in the lower body shall be necessary for membership in the higher. His objection is that this is unfair to certain honorable members of the profession, who are already members of the state societies, but who do not care to work in county organizations. (He also refers to the judicial side of the question, upon which I have no opinion to offer.) From my own experience with physicians it seems incredible that any honorable physician could wish to do other than work in his own county society and do all in his power to make it an organization that would merit the respect of the community, so that when its members came together and expressed themselves in matters pertaining to the public good their opinion would be respected.

It certainly would seem to be just to both old and new members that there should be a common standard for all alike; that the opinion of the majority of the physicians of one's own community, who know him best, rather than that of the members of the state society, should determine one's membership. This seems so just and reasonable that I fail to see any necessity for special exemptions or any good to come from them. When the medical profession of the United States becomes reorganized upon this basis it is reasonable to expect two results: 1. It will wield a power in the national, state, and local affairs worthy of the dignity of the profession; for physicians will have learned how to work effectively together. 2. No physician will be practicing medicine very near, if not over, the border line of quackery, in his own community while still preserving some remnants of professional respectability for himself by membership in a state society, and the American Medical Association. MARY GAGE-DAY, M.D.

Reflex in Irritable Urethra.

BAGLEY, IOWA, March 4, 1902.

To the Editor:—An aid in the diagnosis of irritable or irritated urethral mucous membrane and in the so-called uricacidemics, especially in those where there is great benefit derived from a few passages of the cold steel sound, is what may be called the "umbilico-urethral reflex." The elicitation of this is an easy matter in lean individuals, but in fat persons, difficult, yet practicable.

The manner of performance is a movement from above downward of the nail of the forefinger over the exact center of the umbilicus—"a scratching"—and done not quickly or lightly. This causes the above characterized patients to complain of a sharp, shooting, cutting pain, sometimes of momentary persistence followed by a desire to urinate—from the neck of the bladder to the meatus urethræ.

I will not attempt to explain the observation, but believe it due to the complex innervation of the fetal remnants of the allantois—the urachus—in the adult, and the genito-urinary tract. I have seen no mention of this in literature to which I have access, but if otherwise I would like to know.

Yours sincerely, JAS. H. MORROWAY, JR.

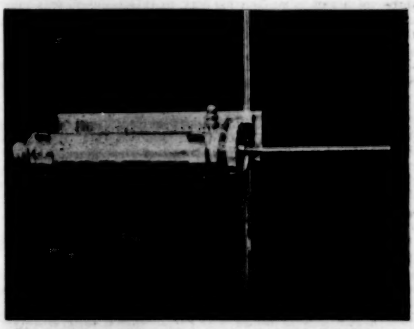
New Instrument.

STERILE SOAP MACHINE.

J. H. FIRESTONE, M.D.
FREEPORT, ILL.

The accompanying cut shows something new in the line of a foot-power sterile soap machine for use in operating rooms.

It consists of a cylinder and plunger, operated by foot power, applied to a ratchet wheel acting upon the arm of the piston by a double-thread screw, which forces the plunger into the cylinder. There are two blank screw caps that go with each cylinder. The plunger, cylinder and contents are sterilized before using.



The machine is taken from the bracket and the plunger removed from the cylinder; then the cylinder is filled with green soap and the blank caps are screwed on either end. The filled cylinder and plunger are then sterilized. After sterilizing the blank caps are taken off, the plunger is adjusted and the machine is placed in the bracket ready to operate.

The machine is made in three sizes, each containing ½, 1 or 2 pounds of green soap.

State Boards of Registration.

Utah State Examination.—The Board of Medical Examiners of the State of Utah held its regular quarterly examination at Salt Lake City, January 6 and 7. The number of subjects examined in were 10; total number of questions, 70; percentage required to pass, 75. The number of applicants were 6, of whom 5 passed.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per cent.
		PASSED.		
1	R.	Creighton Medical College.....	1900	77
2	R.	Long Island College Hospital.....	1884	79
3	R.	University of Denver, Med. Dept..	1894	79
4	R.	Gross Medical College.....	1900	85
5	R.	Washington University, Med. Dept.	1886	80
		FAILED.		
6	R.	Berlin University, Germany.....	1899	73

Can Not Practice in District of Washington Pending Examination.—In the case of a physician of Alexandria, Va., a graduate of the Columbian University School of Medicine, who requests the privilege of following his profession in the District until an opportunity is given him to take the examination prescribed for practicing physicians, Dr. William C. Woodward, the health officer, has submitted a report in which

he says that the licensing of physicians is regulated by the act of congress of June 3, 1896; this law authorizes the issuance of licenses to licentiates of states under certain conditions, but only when such states issue licenses to licentiates of the District under the same conditions; that the State of Virginia does not so issue licenses and therefore that physicians from Virginia are not entitled to the license under the law. The law referred to does not authorize the issuance of temporary licenses pending examination.

Married.

WILFRED TAYLOR, M.D., to Miss Helen Marot, both of Dayton, Ohio, January 1.

ALFRED J. ABBOTT, M.D., to Miss Jennie M. Congdon, both of Albion, Mich., February 19.

GARDNER PERRY POND, M.D., to Miss Phoebe Painter, both of San Francisco, Cal., February 13.

EMIL MAISNER, M.D., to Miss Sophie Bloch, both of Union Hill, Hoboken, N. J., February 12.

JOHN GRANT WILKINS, M.D., Atlanta, Ga., to Miss Daisy Hester, of Albany, Ga., February 19.

CYRUS D. LLOYD, M.D., Boston, Mass., surgeon of the 44th U. S. Volunteer Infantry, who has served in the Philippines for three years and is now on his way to this country, was married to Miss Mary E. Hiatt, of Leavenworth, Kan., May 23, 1899, in Jackson County, Mo.

Deaths and Obituaries.

John Coventry, M.D. University of the Victoria College, Cobourg, Ont., 1866, health officer of Windsor, Ont., and one of the prominent physicians and citizens of that place; member and some-time president of the Ontario Physicians' and Surgeons' Association; a veteran of the Civil war, in which while still a student he served on the medical staff of the 16th N. Y. Volunteer Infantry, died at his home in Windsor, February 22, from pneumonia, aged 64.

Louis Lewis, M.R.C.S. England, 1862, Fellow of the Royal College of Surgeons, member of the British Chemical Association, some-time editor of the *Medical World*, *Medical Council* and *Medical Times and Register*, at one time a surgeon in the Royal Army Medical Corps, and for nearly twenty years a practitioner of Philadelphia, died at St. Vincent's Hospital, New York, after a surgical operation, February 19, aged 63.

Henning H. Murrey, M.D. University of Nashville, Tenn., 1898, an esteemed young physician of Nashville and assistant to the chair of surgery in his alma mater, died from meningitis, February 20, after a brief illness, aged 25. The Nashville Academy of Medicine at a special meeting, February 21, passed resolutions of regret and sympathy regarding his death.

James M. Taylor, M.D. Jefferson Medical College, Philadelphia, 1848, who practiced for many years in Indiana, and Kittanning, Pa., but who retired from practice in 1874, died at his home in Indiana, Pa., from strangulated hernia, February 21, aged 82.

Edward K. Bacon, M.D. Michigan College of Medicine and Surgery, Detroit, 1895, one of the most esteemed among the younger physicians of Detroit, died at his home in that city from pneumonia, February 20. The Wayne County Medical Society appointed a committee to draft resolutions touching his death.

Sullivan A. Taylor, M.D. McGill University, Montreal, 1870, who had practiced at Gilmanton Iron Works, N. H., for more than a quarter of a century, died at his home in that place, from valvular heart disease, February 24, aged 63.

George Zabriskie Hunter, M.D. New York University, 1872, for many years a surgeon on the Pacific mail steamers, died from rheumatism, with complications, at his home in Glen Ellen, Cal., February 16, aged 54.

Joseph Jones, M.D. Bellevue Hospital Medical College, New York, 1866, a veteran of the Civil war, in which he served as surgeon of an Ohio regiment, died at his home in San Antonio, Texas, February 24.

George W. Seip, M.D. Jefferson Medical College, Philadelphia, 1862, a specialist on the eye and ear, who practiced in Stroudsburg, Oil City, and finally in Erie, Pa., died at his home in that city, February 21.

Daniel S. Young, M.D. Albany (N. Y.) Medical College, 1855, formerly one of the prominent surgeons of Cincinnati, Ohio, died at the City Hospital in that City, February 19, from bronchitis, aged 78.

William N. Jett, M.D. Jefferson Medical College, Philadelphia, 1849, the oldest physician in King George and Westmoreland counties, Va., died at his home in Port Conway, Va., February 16, aged 76.

John Johnson Heeren, M.D. Rush Medical College, Chicago, 1899, who practiced for a time in Marinette, Wis., but was soon compelled to go to Colorado for his health, died at Orange City, Iowa, February 23.

John A. Moore, M.D. Keokuk Medical College, 1859, who had practiced in Emporia, Kan., since 1860, died at his home in that city from pneumonia, February 14, after an illness of one week, aged 72.

Alice Ewing, M.D. Northwestern University Woman's Medical School, Chicago, 1894, a practitioner of Chicago, died at the home of her sister in Kenosha, Wis., February 26, aged 52.

George Hunn, M.D. University of Louisville, Ky., 1853, a prominent practitioner of Central Kentucky, died from heart disease at his home in Shelby City, Ky., February 25, aged 73.

M. C. Simmons, M.D. Vanderbilt University, Nashville, Tenn., 1889, formerly of Sutter Creek, Cal., died at his home in Grant's Pass., Ore., from pneumonia, after a short illness.

Daniel W. McKitrick, M.D. Starling Medical College, Columbus, Ohio, 1897, died at his home in Columbus, February 21, after an illness of a year, from tuberculosis, aged 33.

Joseph Temm, M.D., a pioneer druggist and physician of St. Louis, Mo., died at the home of his son in that city, February 19, aged 88.

John T. Moore, M.D. Medical College of Alabama, Mobile, 1891, died from pneumonia, at his home in Orrville, Ala., February 21.

William W. Lark, M.D., a pioneer physician of Monroe County, Ill., died at his home in New Hanover, February 21, aged 67.

Miscellany.

"Thiersched" Skin Flaps in Plastic Surgery.—J Berg describes in the *Nordiskt Med. Arkiv*, xxxiv, i, 3, his brilliant success with a single skin flap, lined inside with Thiersch slices of the epidermis, in operations to close large defects in the bladder, cheek, etc. He has been treating exstrophy of the bladder in this way for eleven years. The thin layer of epidermis protects the skin flap against the action of the urine. Several of his patients seen again after a number of years demonstrated to eye and touch the excellence of the results obtained, in the smooth, soft anterior wall of the bladder. The method has also proved a success in the treatment of hypospadia, but he has been most pleased with the results in five or six cases in which he had occasion to restore the cheek after removal of a neoplasm or for other cause entailing an extensive defect. He always takes the skin flap from the neck and leaves the base wide until the Thiersch grafts have grown into place, after which he cuts it to the proper size. The success depends mainly on allowing ample latitude for the shrinking of the flap and on the care of the flap during the interval while the grafts are healing, before the flap is sutured into place. A week is usually sufficient. A piece of rubber tissue is sutured over the defect in the cheek in the meanwhile. He has also obtained excellent results in rhinoplastics by combining Mangoldt's cartilage transplantation with a Thiersched single flap when the framework of the nose was destroyed. He has recently treated a defect in the trachea by this combined method, but too recently to judge of the results.

Pneumonia and Exposure to Cold.—It is years now since the medical profession gave up the idea that exposure to cold was capable *per se* of giving rise to pneumonia; we know that the disease is due to a specific micro-organism. But the notion that "this is good weather for pneumonia"—meaning cold

weather—still holds almost unquestioned sway among the people. It is said that the President's son, ill with pneumonia, has been in the habit of taking long walks in the country bare-headed, and that in this practice he has been joined by a number of his school-mates. To this exposure of the head to cold some newspaper writers have felt inclined to attribute the pneumonia. No argument is needed to upset this theory; we have only to point to the experience of the pupils of Christ's Hospital, in London, commonly known as the "blue coat school" on account of the garb worn by the boys. The small blue worsted cap which has always formed part of their uniform they seldom wear, having cast it aside scon after the founding of the school, in 1553. They are to be met with in all parts of London at any season of the year and in all sorts of weather, always bare-headed. This practice of theirs has been going on for more than three hundreds years now, furnishing on a large scale experimental evidence against the notion that cold causes pneumonia, for the disease has been no more rife among them than among other school boys.—*N. Y. Med. Jour.*

Legal Quacks and Medical Quacks.—The difference in the treatment accorded unprofessional members of the legal profession by the profession as a whole, and the treatment of similar interlopers in the medical profession, or rather the lack of treatment, has been frequently commented upon. A dishonorable or quack lawyer is disbarred, and he can no longer fleece the public under his respectable cloak. But once a physician, always a physician, and the abortionist and quack, known and condemned as he may be, goes his way so long as he is not behind bars. His evil reputation is indeed often his best card. Still the legal profession is not satisfied with the cleansing of its ranks that has been done, which is commendable. The lay press appreciates the deficiences also, as shown by the following editorial from the *Chicago Record-Herald* of Feb. 20:

The grievance committee of the Chicago Bar Association has inaugurated what it is hoped will be a serious and aggressive crusade against disreputable and unprofessional lawyers. Through a circular sent to members of the Association it asks the co-operation of attorneys in this work of purging the local bar, and offers to investigate complaints of unprofessional conduct if the allegations pertaining to such misconduct are made under oath, as required by law.

The number of unworthy lawyers in Chicago has grown so large that reputable members of the bar have become aroused to the necessity of doing something to remove the stigma that unquestionably rests upon the profession by reason of illegal and immoral practices. There appears to be general agreement among judges and leading members of the bar that a considerable portion of the 3,700 lawyers in Chicago either violate the statutes governing the practice of law or are persistently guilty of unprofessional conduct. Notwithstanding this acknowledgment the disbarments are known to be very few.

With the ethics of the profession the public is not deeply concerned. The lawyer who insults the court by offensive language or brutally browbeats a witness can generally be dealt with by the judge, and, as a rule, he soon invites the contempt of decent practitioners. Even the ignorant lawyer can be tolerated, especially if he have enough honesty to compensate for deficiencies in legal knowledge.

But the scoundrel and the shyster, who resort to illegal and immoral practices to pervert or defeat justice, who openly violate the statute by fomenting strife that culminates in litigation, should be booted swiftly and unceremoniously out of the profession.

For the ignorant lawyer who was admitted to the bar in the days when the requirements were not so high, there may be room for reasonable leniency But for the rascally marplot who makes a business of promoting litigation, who is willing to use the testimony of a hired or perjured witness as a basis for a suit, there should be no mercy. Kick him out.

If in this arraignment the word "doctor" is substituted for "lawyer" the situation is still correctly described. The results accomplished by the legal quack are so insignificant when compared with those of his medical congener that they seem trivial indeed, and yet how much does the public or the public press concern itself with the latter. Is it that which touches purse strings more than that which assails health, or is it simply that legal quacks use so much less advertising space?

Consequences of Nearly Total Strumectomy.—When four-fifths or more of a struma are removed the results depend on whether the portion left continues to retain its vitality or atrophies. In the latter case there is liable to be acute tetany with or without myxedema, sometimes terminating in recovery. In a case described by Lundborg in the *Upsala Lack. Foerhandl.* for December 21, acute and chronic tetany were observed. Hoffman reports a similar case, in which a four-fifths strumectomy was followed by chronic tetany, myxedema and myotonic reaction of the muscles. Both patients were young and both improved remarkably under thyroid treatment.

Tetanus from Carious Tooth.—*El Siglo Medico*, of February 2, describes a case of severe tetanus which developed suddenly in a young man with no apparent portal of entry. The presence of three carious teeth and the patient's habit of picking his teeth with pins, etc., suggested that a cavity in the teeth might be the focus of infection. The physician had them drawn at once and the mouth thoroughly disinfected every morning under chloroform. The case terminated in recovery.

Association News.

New Members.

New members for the month of February, 1902:

ALABAMA.
Prince, E. M., Coleanor.

ARKANSAS.
Greeson, W. R., Conway.
Rinehart, J. S., Camden.

CALIFORNIA.
Parker, A. S., Riverside.
Kraemer, Adolf, Los Angeles.
Hodghead, D. A., San Francisco.
Cowan, A. B. Fresno.
Trowbridge, D. H., Fresno.
Schafer, A. F., Bakersfield.
Carson, J. S., Bakersfield.
Harry, C. R., Stockton.
Young, W. J., Stockton.
Gibbons, W. E., Stockton.
Hammond, R. R., Stockton.
Newark, Phillips, Los Angeles.
Kahn, S. S., San Francisco.
Noble, Maude, San Francisco.

COLORADO.
Pollock, A. R., Antonito.
Hillkowitz, P., Denver.

CONNECTICUT.
Kent, J. B., Putnam.
Brown, D. C., Danbury.
Smith, H. H., New Haven.
Strosser, H., New Britain.
Taft, C. E., Hartford.
Moore, H. F., Bethel.

DISTRICT OF COLUMBIA.
Bowen, W. S., Washington.

FLORIDA.
McNamar, W. D., Jacksonville.

HAWAIIAN ISLANDS.
Holland, Jno., Kapolio.

IDAHO.
Hinkly, F. L., Lewiston.

ILLINOIS.
Byrnes, Frank, Chicago.
Elliott, C. A., Chicago.
Cox, S. W., Chicago.
Kinder, R. G. W., Rockford.
Shambaugh, G. E., Chicago.
Manierre, J. T., Chicago.
Gill, J. C. Chicago.
Harnish, F. C., Chicago.
Anderson, Niels, Chicago.
Gray, W. L., Champaign.
Warren, J. A., Greenville.
Scott, C. R., Belvidere.
Lewis, U. S., East Dubuque.
Hopkins, S. R., Springfield.

INDIAN TERRITORY.
McAllister, J. S., Sapulpa.
Thompson, C. A., Muskogee.

INDIANA.
Hill, L. B., Seymour.
Laughlin, C. E., Orleans.
Mason, G. C., Oakland City.

IOWA.
Putnam, E. D., Lake Park.

KANSAS.
Norman, E. J., Eureka.
Howard, Minerva F., Cuba.

KENTUCKY.
Caldwell, A. G., Ballard.
Keffer, S., Glenwood.
Kavanaugh, E. W., Lawrenceburg.
Lambert, S., Owensboro.

LOUISIANA.
Roaldes, A. W., de, New Orleans.

MASSACHUSETTS.
Cobb, T. F., Boston.
Brewster, G. W. W., Boston.
Lund, F. B., Boston.
Blake, J. B., Boston.
Keefe, D. E., Springfield.
Robbins, E. E., New Bedford.
Tilden, I. N., New Bedford.
Blair, G. K., Salem.

MEXICO.
Harle, C. S., Chihuahua.

MICHIGAN.
Hornbogen, A. W., Marquette.
Brock, W. H., Midland.
Mitchell, J. W., Bridgeport.
Graham, F. W., Ludington.
Williams, N. H., Jackson.

MINNESOTA.
Irish, P. H., Akeley.
Munro, A. T., Wood Lake.

MISSOURI.
Bristow, G. M., Princeton.
Culbreath, C. B., Cleopatra.
Thompson, J., Kansas City.
Copeland, C. C., Mill Grove.

NEBRASKA.
Lorance, B. F., Brock.

NEW HAMPSHIRE.
Gleason, A. R., Keene.

NEW JERSEY.
Davenport, G. S., Garfield.

NEW YORK.
Purdy, W. I., Middletown.
Hulett, J. R., Middletown.
Wakefield, H., New York City.
Hadley, W. W., Stone Ridge.
Hannon, T. H., Hoosick Falls.
Irish, R. H., Troy.
Nisbet, J. D., New York City.
Allen, C. W., New York City.
Ware, M. W., New York City.
Schneider, L. B., Troy.
Meyer, W. J., White Plains.

NORTH CAROLINA.
Davis, T. W., Mayodan.

NORTH DAKOTA.
Westeen, A. A., Grand Forks.

OHIO.
Syman, L. L., Springfield.
Barger, W. T., Cleveland.

OREGON.
Chipman, R. J., Portland.
Paine, D. A., Eugene.
Simmons, W. R., Portland.
Roth, J. B., Portland.
Mackay, A. E., Portland.

PENNSYLVANIA.
Mills, H. Brooker, Philadelphia.
Davenport, S. M., DuBois.
Clouse, A. W., Geneva.
Nightingale, H. B., Philadelphia.
Eaton, A. M., Philadelphia.
Irish, W. B., Pittsburg.
McGraw, E. B., Pittsburg.
Cochran, J. C., Big Run.
Neely, F. E., Allegheny.

RHODE ISLAND.
Peters, W. W., Providence.
SOUTH CAROLINA.
Tuten, T. H., Brunson.
SOUTH DAKOTA.
Talbott, E. F., Flandreau.
Geib, D., Groton.
Roberts, T. S., Sioux Falls.
TENNESSEE.
Flippin, P. J., Rosemark.
TEXAS.
Clavin, E. C., San Antonio.
Garrett, W. A., Corsicana.
Withers, R. L., San Antonio.
VERMONT.
Hammond, S. W., Rutland.
VIRGINIA.
Smith, T. W., Bethel Academy.
Harris, J. E., Norfolk.
Walker, E. E., Pamplin City.
Grandy, C. R., Norfolk.
WASHINGTON.
McGeer, G. H., Tacoma.
Smith, J. L., Spokane.
Lynch, C. J., North Yakima.
Axtell, W. H., Whatcom.
Kirkpatrick, W. D., Whatcom.
Hilscher, F. W., Spokane.
Rummel, T. C., Tacoma.
Van Zandt, E., Whatcom.
WISCONSIN.
Smith, C. S., Elroy.
Campbell, B. L., Monches.
Dewire, M. V., Sharon.

Societies.

COMING MEETINGS.

Medical Association of the Missouri Valley, Lincoln, Neb., March 20, 1902.
American Association of Pathologists and Bacteriologists, Cleveland, O., March 28-29, 1902.
Medical Association of the District of Columbia, Washington, April 1, 1902.
Tri-State Medical Society of Iowa, Illinois and Missouri, Chicago, April 3-4, 1902.
Tennessee State Medical Society, Memphis, April 8, 1902.
Florida Medical Association, Tampa, April 9, 1902.
Western Ophthalmological and Oto-Laryngological Association, Chicago, April 10-12, 1902.
Medical Association of the State of Alabama, Birmingham, April 15, 1902.
Medical Society of the State of California, San Francisco, April 15-17, 1902.
Medical Association of Georgia, Savannah, April 16, 1902.
Mississippi State Medical Association, Jackson, April 16, 1902.
South Carolina Medical Association, Spartanburg, April 16-17, 1902.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 22, 1902.
Association of American Physicians, Washington, D. C., April 29-30, 1902.
American Association of Genito-Urinary Surgeons, Atlantic City, N. J., April 30, 1902.

The Memphis (Tenn.) Medical Society has changed its name to "The Memphis and Shelby County Medical Society," and will be recognized as the Shelby County Society.

Medical Society of the Missouri Valley.—This Society will hold its 14th semi-annual meeting at Lincoln, Neb., March 20, under the presidency of Dr. Richard C. Moore, Omaha.

Harrison County (Tex.) Medical Society.—On February 4 it was decided by this Society to endeavor to affiliate with the State Society and delegates were appointed to the May meeting.

Hancock County (Ohio) Medical Society.—This Society met at Findlay, February 13, and elected Dr. Myron J. Ewing, president; Dr. Norman L. McLachlan, vice-president, and Dr. Don C. Hughes, secretary and treasurer, all of Findlay.

Lynn (Mass.) Medical Fraternity.—On February 9, the Fraternity held a meeting and discussed smallpox and vaccination. Dr. Charles A. Lovejoy, president; Dr. Leonard V. Hatch, vice-president, and Dr. Charles D. S. Lovell, secretary and treasurer.

New York Academy of Medicine.—In the Section on Medicine, Dr. James K. Crook has been elected chairman, and Dr. E. Ellsworth Smith, secretary. In the Section on Obstetrics and Gynecology, Dr. James N. West has been elected chairman, and Dr. Louis J. Ladinski, secretary.

King County (Wash.) Medical Society.—At the postponed annual meeting of this Society, held at Seattle, February 17, Dr. David A. Mitchell was elected president; Dr. George H. Randell, vice-president; Dr. Guy S. Peterkin, secretary, and Dr. W. T. Miles, treasurer, all of Seattle.

Southwestern Iowa Medical Association.—The annual meeting of this Association was held at Creston, February 20. Dr. Enos Mitchell, Weldon, was elected president; Dr. Ross H. Gregory, Nevinville, vice-president; Dr. Joseph P. Claybaugh, Creston, treasurer, and Dr. Frank E. Sampson, Creston, secretary. The midsummer meeting will be held at Albia, August 21.

Medical and Chirurgical Society of Richmond (Va.).—The colored medical men of Richmond and vicinity organized this Society, February 19, with the following officers: Dr. Richard F. Tancil, president; Dr. Henry L. Harris, vice-president; Dr. John Meriweather, treasurer, and Dr. O. B. H. Bowser, secretary, all of Richmond. The membership includes colored practitioners of medicine, dentistry and pharmacy.

New Castle County (Del.) Medical Society.—The regular physicians of the county met at Wilmington, February 20, and organized a medical society with the following officers: Dr. Willard Springer, Wilmington, president; Dr. Harry G. M. Kollock, Newark, vice-president; Dr. Joseph W. Bastian, Wilmington, secretary, and Dr. James A. Draper, Jr., Wilmington, treasurer. The Society will meet in Wilmington monthly.

Shelby County (Tenn.) Medical Society.—The permanent organization of this Society was held at Memphis, February 17. A constitution and by-laws were adopted and the following officers elected: Dr. Joseph H. Stolper, Memphis, president; Dr. Benjamin L. Branch, Collierville, vice-president; Dr. George E. Pettey, Memphis, secretary; Dr. Joseph H. Liebkemann, Memphis, treasurer, and Dr. John H. McKay, Memphis, reporter.

Pottawatomie County (Okla.) Medical Society.—This Society was organized at Shawnee, January 27, auxiliary to the Oklahoma Medical Society. The following officers were elected: Dr. J. W. Kerr, president; Dr. A. T. Grayson, vice-president; Dr. Ed. E. Rice, secretary, and Dr. G. R. Connally, treasurer. At the next meeting, February 11, a constitution and by-laws were adopted and the Society started on routine work.

Grand Rapids (Mich.) Academy of Medicine.—The annual meeting and banquet of the Academy were held at the Morton House, February 18. Dr. Henry Hulst was elected president; Dr. John R. Rogers, secretary; Dr. John A. McColl, vice-president, and Dr. Earl Bigham, treasurer. Dr. Reuben Peterson, Ann Arbor, spoke on "Maternal Impressions"; Dr. George Dock, Ann Arbor, delivered an address on "Specialism in Medicine," and Dr. Donald MacLean, Detroit, discussed "Professional Plagiarism."

Eastern Hampden (Mass.) Medical Association.—At the annual meeting of this body, held at Springfield, February 20, Dr. Walter R. Weiser, Springfield, the retiring president, gave an address on the history of medicine, and prophesied as to its future. The following officers were elected: Dr. George W. Rawson, Amherst, president; Dr. Richard E. Dickson, Granby, vice-president; Dr. George H. Finch, Springfield, secretary and treasurer, and Dr. Harry C. Martin, censor. It was decided to hold the next annual meeting at the same place.

CHICAGO LARYNGOLOGICAL AND CLIMATOLOGICAL SOCIETY.

Regular Meeting, held Jan. 21, 1902.

The President, Dr. W. E. Casselberry, in the Chair.

DR. OTTO T. FREER read a paper on "The Correction of Deflections of the Nasal Septum, with a Minimum of Traumatism." This article is published in full on page 636 of this issue.

DISCUSSION.

DR. MOREAU R. BROWN, in opening the discussion, said that, as to the method advocated by Dr. Freer, the length of time the operation requires would cause one to hesitate performing it, and as it is the popular idea, not only among the laity in general but among the members of the medical profession, that the septum is the support to the nose and that if we remove the support the nose is apt to fall in, one should hesitate in removing it. Should the nose become depressed later on through disease or accident and legal proceedings be brought against us, it would be difficult to protect ourselves from the charge that removal of the septum was the cause of the depression of the nose. However, the operation of Dr. Freer is an interesting one and surely would be followed with excellent results in certain cases, though as satisfactory results can be obtained with less disturbance by converting all cases of deflected septum with thickening or outgrowth of the partition into those of simple deflection and then rectifying the latter, as, for example, where the lower part of the septum is dislocated from the septal crest of the superior maxillary or in cases of angular deflection where the septum is thickened; the mucous membrane should be divided and dissected back the entire length of the ridge, the ridge removed and the mucous membrane stitched back in position. The parts heal rapidly within a few days, after which the Roe instruments should be used, first to divide the mucous membrane and the cartilage on the concave side of the septum, secondly by means of forceps to straighten the septum. However, with this precaution, that the smaller size

male blade should be used and not that which was originally intended to be employed with the given size female blade. After the septum has been straightened by this method, the Wyeth's hard rubber tubes are placed in the nose for several days. I have performed this operation without a general anesthetic and have had uniformly very satisfactory results and no complications of any kind.

DR. A. M. CORWIN—With regard to the use of the Roe instruments, especially the Roe forceps, I have had rather pleasing results in using it in the way Dr. Brown has referred to, that is, by employing a small male blade and large female blade. It seems to facilitate the work by giving room for the septum to pass between the blades when they are closed, so that the fracture is more complete. Simple deflection of the septum without thickening affecting the anterior half of the cartilaginous septum, coming away out to the front is very trying to deal with. These septa are frequently extremely thin and bend easily; the whole nose is very flexible. To straighten them properly or to give any result with reference to the relief of stenosis, without great danger of leaving perforation, has been to me at times no small problem. But with the forceps referred to, I obtained a very fair result in one case a number of years ago, by depressing the curvature at the part of greatest convexity—thus converting the simple into a double Cupid's bow-shaped bend and leaving a fair opening on both sides without disturbing the external contour of the nose. In another case I recall I converted a simple bow-shaped into an S-shaped curvature; the patient breathed through the upper curve of the S on one side, and through the other at the lower side. This was a short distance back, from the extreme anterior end of the septum, so that in that case there was a good practical, but not an ideal, result.

DR. E. FLETCHER INGALS—We find numerous deformities in the nasal septum, and as different physicians have to operate on them they necessarily call for many variations in the operations recommended, and I think for their correction. Some cases are suitable for one and some for another operation, and I presume all of the operations that have gained popularity are adapted to certain cases. The old operation of Chaissagnac, for example, in which the mucous membrane was dissected up and the cartilaginous tissue pared off, the membrane undoubtedly being replaced, is an excellent one for certain deformities. The Roberts operation, highly extolled for some time, consisted of first cutting through the lower part of the deflected portion of the septum, which was then bent over and a pin thrust in from the free side, through the cartilage and imbedded in the mucous membrane back of the cut on the operated side to hold it in position; another pin was then inserted through the nose to support the first. There appears to have been a good deal of discomfort from this procedure that would not arise from ordinary operations, and few laryngologists employ the method. The Gleason operation consists of cutting out at the bottom and sides a U-shaped piece from the septum. This flap, consisting of the whole thickness of the septum, is then forced through the opening and caught and held by a spur at the lower part of the wound on the other side; this operation is well adapted to some deflections, but is not suitable for those cases in which there is much of an exostosis. The so-called Asch operation is a very good one for a bow-like deflection of the cartilaginous septum, where the bony tissues are not much involved; but when the bony tissues are involved, the criticism by the author of this evening's paper appears to me quite just. There is nothing new about the so-called Asch operation, excepting the instruments that Dr. Asch devised with which to perform it. The crucial incision that he recommended, one incision from above downward and the other from before backward, has been the common practice of general surgeons for ages. In the cases for which this operation is specially adapted the crucial incision can be made better by means of a knife than by Asch's scissors, for with the knife they may be made obliquely so that the cut edges will easily slide by each other, and the abrupt edge made by the edge of the right angle cut will be avoided.

The proceduro that has been spoken of as my operation is designed for those cases in which the cartilaginous septum is bent so as to more or less close the nostril by a nearly transverse triangular plate, narrow above but from 5 to 10 mm. in width at the lower part. The operation consists of removing a triangular piece of cartilage from the front wall of this conical projection of just sufficient size so that the opening will be closed when the lateral wall of the conical projection is brought to a vertical position, but this can not be done without cutting away the lower wall or what from the front constitutes the base of the triangle. This, it should be remembered, runs upward and backward as a hard, bony ridge 2 or 3 cm. It may be cut away with a saw or trephine, but I commonly use the latter. The first incision is made from above downward and outward nearly through the middle of the triangle; the mucous membrane is reflected on both sides of this incision to uncover as large a portion of the cartilage as it is desirable to remove; the cartilage is then cut through, preferably with Sajous' knife from above downward on both sides of the triangle, care being taken not to cut through the mucous membrane on the opposite side. This piece of cartilage is then seized at its apex by forceps and drawn down, the mucous membrane being loosened from its posterior surface at the same time, and cut off at the base of the triangle. The lower wall or floor of the conical projection is next cut away with a trephine, and the resiliency of the septum is overcome by cutting through it beneath the mucous membrane with my small hook-like cartilage knife, or by cutting through it in many places with the blades of my septum forceps. The lateral wall is then pressed over to the normal plane of the septum and held in position by a tampon of surgeons' lint that is made to fill the formerly obstructed naris. This tampon is made from a strip of lint about a centimeter wide and a meter in length, that has been thoroughly impregnated with iodoform and boric acid. The flap is held in position and the outer part of the naris retracted with my bent steel nasal spatulæ and the strip of lint is pushed in, fold after fold, with my bent nasal scissors which take the place, for this purpose, of forceps and probe, and which by the way add enormously to the facility in packing this cavity. In destroying the resiliency of the septum, I sometimes cut it through at the upper part with a small trephine beneath the mucous membrane, being careful not to cut the latter, at least on both sides at the same time, but several years ago in one case I had sloughing of the flap from such an operation on account of having destroyed the blood supply. This was a very bad case in which the external wall of the projection had pressed firmly upward and outward upon the roof and external wall of the nasal cavity and the operation was followed by severe hemorrhage that necessitated tamponing both sides for many days. I think a chisel would be an excellent instrument for cutting through the upper part of this triangle in destroying the resiliency, although I have never used one. The operation I perform where there is a good deal of thickening of the septum and a spur, as there is in most cases, is somewhat different. With a Sajous knife passed first to the farther end of the exostosis I cut through the mucous membrane from behind forward, as nearly as possible along the crest. When the incision reaches the anterior end of the exostosis it is swept forward and upward in front of the bent cartilage to the upper part of the septum. With a spud this flap of membrane is lifted off of the cartilage and upper surface of the exostosis throughout its entire length. Occasionally, we cut entirely through the septum when there is a deep furrow on the opposite side, but I try to avoid this and can succeed when the furrow is not too deep; however, if an opening is made the flap will usually cover it. I cut away the bottom of the spur with a trephine and then starting the saw at the very upper part of the spur where the septum is in the normal plane, I cut straight down to the floor. The exostosis is thus removed. Sometimes I cut downward with a saw about 4/5 of the whole distance and then insert the saw below and saw upward to meet the cut from above, but the bony tissue is so hard at the lower part of the exostosis that it is easier to cut with trephine than with saw. After the exostosis is removed, the mucous membrane that has been lifted up is applied to the cut surfaces and

covers any opening that may have been made unless the opening is very large, thus a perfect result will be obtained in the majority of cases. Of course, we do not want a fenestrum, yet if the perforation is only in the bony section, it is of no consequence; however, if close to the front, it is sometimes an awkward thing, causing the patient much annoyance from scabbing, and, as Dr. Corwin suggested, sometimes causing whistling, which is not pleasant. I recall one patient who had a very pronounced whistling that kept him awake at night and annoyed all his friends, and I had a good deal of difficulty in closing the opening, though I finally succeeded. I have never tried the operation of taking out all the cartilage advocated by Dr. Freer; it does not seem to me that I should like it. The front portion of the cartilage and the floor is all that I should take out. The external wall is then bent down so as to cover the opening if one has been made and we have a normal septum instead of a septum with only mucous membrane making up the two sides.

The author employs powdered cocain as an anesthetic. I used it some years ago, but I was not as fortunate as he has been in absence of unpleasant consequences. I had several patients who became very much intoxicated with the cocain, so much so as to be alarming, and I therefore discontinued using it in powdered form. For several years I have employed a 4 per cent. mixture, which very rarely causes constitutional symptoms; indeed, since using this I have not seen a case of cocain poisoning that has caused me any anxiety. This solution which I apply with a swab is guarded by atropin 1/10 grain, strophanthus 1/5 grain, ol. caryophilli 3 minims, and carbolic acid 10 grains to the ounce. The carbolic acid appears to prevent absorption into the blood current to the extent that would occur if it were not used.

DR. CHARLES M. ROBERTSON—It seems to me that of all the cases, practically, that come under the care of the rhinologist, there is a redundancy of tissue at the convex apex of the deflection. According to my experience, the matter in most cases resolves itself into simply cutting away the tissue that is hypertrophied at the apex of the deflection. We can save producing a perforation at the point of greatest concavity by a method mentioned, in the work of Shurly, where a saline solution is injected under the mucous membrane at the point of greatest concavity, which has the effect of lifting the membrane up at this point and, therefore, the saw if it should cut through the cartilage does not cut the mucous membrane. I should think in the class of deflections described by Dr. Freer, his operation would be unique; at the same time, the number of cases to which it is applicable would be exceedingly rare, as exostosis is the rule in all cases of deflected septa. I should feel very chary about using powdered cocain. I have always taught students that it was dangerous to apply cocain, other than on very small pledgets of cotton on a probe, and then only to the part to be operated on, never allowing the pledget to remain upon the tissues for any length of time. I have seen instructors pack pieces of saturated cotton into the nasal cavity and allow it to remain upon the mucous membrane for ten minutes or more. It has been my unfortunate experience to have seen several cases of cocain poisoning, even where small amounts of the drug were used and some of them gave evidence of alarming symptoms. I have, by the use of atropin, overcome to some extent the toxic effect of cocain, and it has been my custom in these cases to place the patient upon full doses of strychnia several days prior to the operation with the administration of stimulants during the operation.

I have never used the Kyle tube, but have used all the rest of them, and to my idea it is about the poorest method of holding the septum in place that could be devised. As to the dressing mentioned, I think anyone would have a hard time in putting iodoform gauze into my nose; I do not appreciate the smell of it, and very many people are susceptible to the effects of iodin. I pack the nose with gauze strips of the same size that Dr. Ingals mentioned, with the exception that I use plain sterilized gauze saturated with sterilized vaseline. The first dressing is allowed to remain in place usually for thirty-six hours, and then the nose is dressed daily for three or four days. The great advantage in this dressing over the dry gauze is that it does not stick to the tissues, and it keeps the tissues covered with sterilized vaseline, thus affording comfort to the patient, and an ideal dressing to the wound. I have seen elevation of temperature in cases where the gauze was allowed to remain in the nose longer than thirty-six hours, and where there is purulent discharge from the nostril at the time of the operation it should be changed much oftener. I pack the nose thoroughly as far back as I can, doubling the gauze so that it can not project into the nasopharynx, and tight enough to control hemorrhage, and hold the parts in place. The other nostril is left open for breathing. I am not so conservative of the mucous membrane as are some of you, as I have often removed it with the spur under it, and, as yet, have never been troubled with scab formation.

DR. HENRY GRADLE—I have come more and more to avoid the Asch operation, although I have never seen bad results from it. I have always considered the Asch operation applicable only to those cases where we deal with a curved septum without thickening, and with plenty of room on the concave side. This condition is not very common, but it does occur, and in such cases the Asch operation is indeed very useful. When the cut edges overlap too much I trim them at the time so as to get as smooth a septal surface as possible after the regular Asch operation. I have never fractured the bone, only the cartilage. I can also say I have not found it necessary to go back into the bone in the operation Dr. Freer describes in my limited experience with it. I have done it according to the original description of Krieg and Boenninghaus, and not with the refined technique and instruments which Dr. Freer employs. I have not been able to save all of the mucous membrane, but I try to save as much as possible of it. The greatest difficulty I find in the operation is to sever the mucous membrane on the convex as well as on the concave sides, and wherever the bend is angular. When the bend is bow-shaped, the separation is not so difficult. I have used submucous injections of salt solution with some cocain on the concave side, and found them of some advantage, but not much. In none of my operations did I go back into the bone. In the majority of cases it is the cartilaginous portion which occludes the nose. However, whenever I can I avoid operations according to the Asch or Krieg methods, if possible, and limit myself to removing all edges and spurs so as to gain space thereby, as these operations are less formidable. After all, the saw is the most ideal instrument, if it is applicable, that is if the spur has not too gradual a slope to permit the successful application of the saw. I wish to call attention to two instruments that are not used quite as much as they deserve, not for the condition which Dr. Freer described, but for the removal of ledges or spurs that extend far back. One is a large trephine; mine has a diameter of 8 mm. It is rather difficult to steady this large trephine. On this account I have had a sheath made consisting of a cylinder into which the trephine fits accurately. The posterior part of this sheath is halved in such a way as to represent only a semi-cylinder instead of a complete tube. The sheath is pushed in so that the open portion hugs the septal crest and the trephine working in the sheath cuts away very accurately the portion hugged by the semi-cylindrical part of the sheath. If necessary, I first use a smaller trephine to weaken the bone and finish with one single sweep with the larger trephine. If the trephine does not remove enough in one application, I reapply the sheath to the edge of the wound and cut off another slice.

Outside of two cases of acute mania I have never been seriously alarmed. During the last six years I have used cocain only on pledgets of cotton, wound very tightly around toothpicks, so that the amount of cocain is not large. In this manner I have used 20 per cent. solutions in hundreds of operations, and have never seen any unpleasant results therefrom.

DR. FREER, closing the discussion—Dr. Brown has referred to the possibility of damage suits after the operation I advocate, providing the patient accidentally should fracture and deform his nose at some time after the deflection has been corrected. It is possible that this very statement may direct

the attention of a certain doubtful class of lawyers to the matter, but I think that the fact that such an authority as Dr. Brown agrees with me that the septum is not needed as a support to the external nose and that no member of this Society has objected to my statement to that effect, would deprive the legal action mentioned of all basis. My operation would not weaken the septum more than would the usual operations for correction of deflections. For example, if the septum had any supporting function for the external nose, the operation of Gleason would certainly destroy this more than the window-resection operation would, as the U-shaped flap separated by the saw is certainly incapable of supporting anything, and this flap in extreme deflections is intended by Gleason to include the entire septum from the cartilaginous part anteriorly back to near the posterior border of the vomer. This will leave only a small frame of undivided septum left to furnish the supposed supporting function. The fractures and incisions of the Asch operation would act in a similar way. The amount of cartilage or bone removed by the resection operation that I advocate bears but a small proportion to the portion remaining untouched, so that an abundant frame of untouched septal cartilage and bone, and that composed of the thickest portions, remains. This suffices amply to maintain the form of the septum and preserve its elasticity. I think that the resection operation may be regarded as a standard one considering the large number of cases reported by Krieg and Boenninghaus, with my own in addition.

Dr. Brown's preliminary removal of the dislocation of the anterior inferior angle of the quadrangular cartilage is probably better than my mode of its subsequent excision, as when the main operation is done the patient is disappointed if he can not breathe freely at once. With reference to the stellate punch included in the Roe set of instruments I think that Roe himself has largely given this up for the knife used by him to cut through the cartilage. The suggestion to use a smaller male blade with a larger female one I think would add to the efficiency of the Roe forceps.

I seem to have produced the impression that the resection operation is excessively lengthy. I included preparations and dressings in my estimate of time. The actual operating, even in a case of great deformity, usually does not exceed three-quarters to one hour. I do not think that any surgeon can correct an extreme deflection involving the bone extensively in much less than an hour by any method.

Dr. Ingals has emphasized the usual association of deflection with ecchondroses, exostoses and thickenings. It has been my fortune to meet a number of deflections of even thickness, but I agree that this is not the rule. The resection method is especially fitted to cope with ecchondroses and exostoses and especially the greatest difficulty, thickenings of the wall of the deflection. These can all be removed bodily during the operation with chisels or cutting forceps from between the two layers of mucosa. I endeavor to limit the use of the trephine as much as possible on account of its tendency to tear the mucosa into shreds. It is even more difficult to preserve the mucous membrane when a saw is used. The chisel I employ more and more as it does no injury beyond its proper field of action. It is what Nicholas Senn calls "the instrument of precision." By making the incisions made by it in the bony septum meet behind at an angle it is possible to cut out nearly all of a bony deflection with a few blows of the mallet. Operations of the Asch or Gleason type are not fitted to cope with the frequent ecchondroses and exostoses mentioned by Dr. Ingals.

It is the amount of cocain in grains or parts of a grain absorbed by the patient that involves possible danger to him and not the concentration of the solution. With powdered cocain an intense local effect is produced while but little cocain is absorbed. The swab used is moistened before it is dipped in the cocain powder so that this is applied in the form of a thick syrup which adheres to the part touched with it while cocain solutions run and diffuse themselves over a larger surface with greater danger of absorption. Atropin, as suggested by Dr. Ingals, would prove a valuable antidote to the depressing effect of cocain. Dr. Corwin's lucid explanation of the mode of action of the Roe forceps was pleasing to me, as he explained so clearly the mechanical reasons for their action, in fact I did not understand the manner in which they produced their effect perfectly until I had seen his drawings.

I have never tried the effect of the injection of saline solution underneath the mucous membrane of the concavity, as I should fear lifting this off further than the operation was intended to go, thus endangering the nutrition of the mucosa.

I am glad that Dr. Robertson agrees with me concerning the use of tubes. I think that he misunderstood me in regard to the material used by me in packing the nostril. I do not use iodoform gauze but lint saturated with powdered subnitrate of bismuth. My packings have never become foul nor have I ever had sepsis follow the operation; this may occur, however, and depends largely on the vitality of the patient.

Therapeutics.

PRESCRIPTION WRITING, XVI.

(Concluded from page 608.)

Metric System—Continued.

In order to facilitate rapid calculation in the use of the metric system, certain rules have been formulated which render the estimation of the dose of each individual ingredient unnecessary and yet insures accuracy in the amount of each given.

When a liquid preparation is prescribed the amount called for should be 2 ounces or a multiple of two, and when capsules are ordered the physician should write for 15, or a multiple of 15. A 2-ounce mixture, one teaspoonful at a dose, contains practically fifteen doses, since a teaspoon holds a fraction more than a dram. The following will serve to illustrate these statements: The amount of each ingredient prescribed in a 2-ounce mixture should contain as many cubic centimeters (or grams if solid) as correspond to a single dose of the ingredient when given in minims (or grains) in the apothecary measure. This may be seen in the following prescription:

℞.	Quininæ bisulph.	2
	Tinct. nucis vomicæ	5
	Tinct. hyoscyami	10
	Tinct. card. comp.	15
	Tinct. gent. comp. q. s. ad	62

M. Sig.: Take one teaspoonful in water before each meal.

In the above it will be observed that by converting these amounts into the apothecary system and calculating in the ordinary way the number of grains or minims of each ingredient given at one dose corresponds approximately to the number of cubic centimeters or grams of each prescribed. Thus, the 2 grams of quinin will represent 2 grains to the teaspoonful; the 5 c.c. of tincture of nux vomica will give 5 minims to the dose and the 10 c.c. of tincture of hyoscyamus, and the 15 c.c. of comp. tincture of cardamom will indicate 10 and 15 minims of the respective tinctures to each dose.

In a 4-ounce mixture, with a teaspoonful at a dose, the amount of each ingredient contained in the mixture as prescribed in cubic centimeters or grams should be double its dose in minims or grains, so that the foregoing prescription would be written as follows:

℞.	Quininæ bisulph.	4
	Tinct. nucis vomicæ	10
	Tinct. hyoscyami	20
	Tinct. card. comp.	30
	Tinct. gent. comp. q. s. ad	124

M. Sig.: One teaspoonful in water after each meal.

Following the same rule of proportions, if a 4-ounce mixture is ordered with directions to take two teaspoonfuls at a dose, then the amounts should remain the same as when 2 ounces are prescribed with one teaspoonful at a dose; it would remain unchanged when the patient received an 8-ounce mixture, with a tablespoonful at a dose. But, on the other hand, an 8-ounce mixture, with a teaspoonful at a dose, should contain four times the number of cubic centimeters or grams as there are minims or grains desired in each dose.

In writing for capsules, the same proportions must be observed as in the liquid form.

Cracked Nipples.

The following is suggested by the *Montreal Medical* in treatment of cracked nipples:

℞ Gutta percha ..... gr. xx
Spts. chloroformi q. s. to dissolve.
M. Sig.: Apply after each nursing; or:

The following formulæ are very frequently employed in healing fissures of the nipples:

℞	Tinct. benzoini comp.	m. xv	1 |
	Olei olivæ	ʒii	7 | 50
	Lani	ʒvi	22 | 50

M. Sig.: Apply after each nursing, or:

℞	Ichthyol	ʒi	3 | 75
	Ol. eucalypti	m. v	30
	Lani	ʒv	18 | 75

M. Sig.: Apply locally after nursing and wash before nursing again.

Throat Symptoms in Scarlatina.

M. G. Price, as noted in *Med. Standard*, recommends capsicum in the throat symptoms of scarlatina, especially in granular and relaxed, enfeebled conditions of the pharynx. The following is used by him as a gargle and administered internally:

℞	Tinct. capsici	ʒi	3 | 75
	Potass. chloratis	ʒiii	11 | 25
	Glycerini	ʒii	60
	Acidi hydrochlor. dil.	ʒiii	11 | 25
	Aquæ q. s. ad	ʒxii	360

M. Sig.: Use as a gargle four or five times daily.

The following is beneficial as a gargle or spray:

℞	Sodii chloridi	gr. v	| 30
	Sodii boratis	gr. v	| 30
	Ol. eucalypti	m. 3/50	| 0036
	Ol. gaultheriæ	m. 3/100	| 0018
	Menthol	m. 3/50	| 0036
	Thymol	m. 3/50	| 0036
	Aquæ q. s. ad	ʒiv	120 |

M. Sig.: Use as a spray.

Aspirin in Rheumatism.

Coverly, in *Ther. Gaz.*, reports favorably on the use of aspirin in rheumatic affections. This preparation is a salicylic acid derivative, being a combination of acetyl with salicylic acid. It does not irritate the stomach because it is but slightly decomposed there; the alkaline fluids of the intestine, however, liberate the salicylic constituent, which is then taken into the circulation. Aspirin has also been recommended in neuralgias of tabes dorsalis and in the pain of cancer of internal viscera.

Diabetes in Children.

The following, according to *Le Prog. Médical*, are of service in the treatment of diabetes in children:

℞	Antipyrini	ʒss	1 | 90
	Glycerini	ʒvi	22 | 50
	Aquæ q. s. ad	ʒiv	120 |

M. Sig.: One to four teaspoonfuls in twenty-four hours; or:

℞	Strych. sulph.	gr. 1/140	| 00046
	Sodii arsenatis	gr. 1/70	| 00093
	Codeinæ	gr. 1/7	| 0093
	Quininæ valer.	gr. 5/7	| 0465
	Ext. valerian q. s.		

M. Ft. pilula No. i. Sig.: One to six such pills, according to age or case.

Pruritus.

Dr. M. B. Hartzwell, in *Ther. Gazette*, states that itching is one of the most common and at the same time annoying symptoms of many diseases of the skin. He relates some of the causes, such as coffee, tobacco and drug habits; or jaundice from obstruction, nephritis, diabetes mellitus, etc. He states that internal remedies, however, are less numerous and less useful than local treatment; and that whatever internal remedies are used local remedies can not be well dispensed with. In mild cases of pruritus, inunctions with petrolatum, oleum amygdalæ, or unguentum aquæ rosæ, will often suffice, or bathing the parts in water as hot as can well be borne will in a large proportion of the cases prove effective. But no local remedy, according to his statement, is so generally useful as carbolic acid used either in the form of an ointment or a lotion. The following lotion is recommended by him as a splendid application in all forms of itching:

℞	Acidi carbolici	ʒss	1 | 90
	Glycerini	ʒii	7 | 50
	Aq. camphoræ q. s. ad	ʒiv	120 |

M. Sig.: To be mopped, not rubbed, upon the affected parts every three hours.

In treating small areas of pruritus, such as pruritus ani, he advises the following paste:

℞	Acidi carbol.	gr. x-xv	| 66-1
	Pulv amyli		
	Bismuthi subnit, āā	ʒii	7 | 50
	Petrolati	ʒss	15 |

M. Sig.: Apply locally two or three times daily; or:

℞	Acidi carbol.	gr. x	| 66
	Pulv. camphoræ	gr. xv	1 |
	Pulv. amyli		
	Bismuthi subnit, āā	ʒii	7 | 50
	Petrolati	ʒss	15 |

M. Sig.: To be applied locally when the inflammation is of moderate severity.

He warns against the use of carbolic acid ointment when large areas of skin are involved, suggesting the use of lotions instead.

He regards menthol as next in rank to carbolic acid as an antipruritic. He employs it in many cases of pruritus ani and pruritus vulvæ. He prescribes it in the form of a paste or an ointment, as it is not very soluble in water and alcoholic lotions are irritable. The following is recommended:

℞	Menthol	gr. viii	| 50
	Pulv. amyli		
	Pulv. zinci oxidi, āā	ʒiss	5 | 60
	Ung. aq. rosæ	ʒv	18 | 75

M. Sig.: Apply locally. The above paste is of use as a soothing and cooling ointment in the dry and less inflammatory varieties of eczema. He also states that the strength of menthol should rarely exceed 10 grains to the ounce.

The pain to the eyes which it causes when applied to the face makes its use there unpleasant. Resorcin, in his opinion, while not so useful in itching, renders good service in the moist forms of eczema when applied as a lotion. Its power to relieve itching is increased considerably by the addition of a half of one per cent. of sodium chlorid as follows:

℞	Resorcini	gr. xv-ʒss	1-2 |
	Sodii chloridi	gr. xv	1 |
	Glycerini	ʒii	7 | 50
	Liq. calcis q. s. ad	ʒiv	120 |

M. Sig.: Apply locally.

He especially recommends thymol in senile pruritus. It may be employed in the form of a lotion in the strength of one-half grain to the ounce, either alone or in the following combination:

℞	Thymol	gr. viii	| 50
	Liq. potassæ	ʒi	30
	Glycerini	ʒiii	11 | 25
	Aq. q. s. ad.	ʒviii	480 |

M. Sig.: To be used locally two or three times a day.

In the itching of lichen planus the following is recommended:

℞	Hydrarg. biehloridi	gr. ss-v	| 03-30
	Acidi carbol.	gr. xx	1 | 33
	Ung. zinci oxidi	ʒi	30 |

M. Sig.: Apply locally.

In the rebellious cases of pruritus ani and pruritus vulvæ, which are the most annoying of all the itching diseases of the skin, he recommends the following:

℞	Argenti nitratis	gr. x-lx	| 66-3.75
	Aq. destil. q. s. ad	ʒi	30 |

M. Sig.: Apply locally with a camel's hair brush every second day.

He sometimes prefers spirits of nitrous ether or tincture of benzoin compound similarly applied.

V 3
190

Medicolegal.

Not an Expert on Effect of Electricity.—The Court of Civil Appeals of Texas says, in the case of Wehner vs. Lagerfelt, that an "expert," as the word imports, is one having had experience. Here a physician of 35 years' practice was called to testify with regard to the effect of a shock of electricity on the human system. He said that he had read the best authorities on the subject, and knew what the authorities said and claimed to be the result of electricity upon the human system. But at the same time he said he was not an expert, and, to be very frank, did not feel qualified to give an opinion; that he did not know what would be the probable result of a shock from electricity, such as was complained of in this case, from actual experience, because he had no experience in treating such cases, though, from reading the best authorities on the subject, he knew what they said about the matter. He testified to everything he knew about the effect of the electric shock upon the child that had received it, and the court holds that there was no error in refusing to permit anything more to be proved by him. It compliments him on his candor, and says that of all others he was best qualified to know whether he was an expert on the subject concerning which his opinion was sought to be given, namely, that a shock to the human system from electricity, such as had been received in this case, would leave no permanent injury or bad results, and that there would be no tissue change on account of the shock. When a witness states he knows nothing about the subject of inquiry, and that he is not qualified to give an opinion, he should not be permitted to express any; for, in order to say something concerning a matter, the witness should know something. While an expert may testify to an opinion of his own derived from books, for one to do so he must be an expert, and have an opinion of his own upon the subject of inquiry. Books of science are not admissible in evidence to prove the opinions contained therein. If they are not, how can one who knows their contents, but has formed no opinion of his own upon the subject under consideration, be allowed to testify to what the books say? The books themselves would be the best evidence, and they are no evidence at all.

Communications to Physicians About Accidents.—In the personal injury case of Griebel vs. the Brooklyn Heights Railroad Company, the second appellate division of the Supreme Court of New York says that if the law-making power desires to extend the privilege of secrecy to all statements of every kind made by an injured person to his medical attendant, it is very easy to say so in plain and unmistakable language. Up to the present time, however, the New York legislature has refused to go so far as that. It has limited the privilege to information necessary to enable the physician or surgeon to act in the capacity of physician or surgeon; and when, in any case, it is perfectly plain that the information given is not of this character, there is no reason why the courts should be sedulous to create a protection which the legislature has not seen fit to bestow. It is easy, of course, to imagine cases, and any judge who has had much experience in the trial of negligence suits can recall many, where a disclosure by the injured person of the manner in which the accident occurred might well be deemed necessary to the furtherance of proper surgical or medical treatment. These remarks, of course, do not apply to such cases, but only to those cases in which there is absolutely nothing to indicate that the information disclosed by the patient, and sought to be laid before the jury, could have any possible bearing upon the professional conduct or action of the medical man to whom the disclosure was made. Moreover, the court holds that where it is the duty of the house surgeon of a hospital to find out from the patient how the accident occurred in order to comply with the rules of the institution, then the information given by the patient on that subject may be deemed privileged.

Mistake Furnishing Deadly Drug Gross Negligence.—The Court of Appeals of Kentucky holds, in the case of Smith's Administratrix vs. Middleton, that to put in charge of a drug business one with authority to dispense such poisonous and dangerous drugs as morphin, where such one gave such a deadly drug to one calling for calomel, placing it in a box labeled, "Calomel, ¼ grain," without notice of the true nature of the drug furnished, was of itself such evidence of that degree of gross negligence that would warrant a jury in finding punitive damages against such wrongdoer. It declares that it can not say that one holding himself out as competent to handle such drugs, and who does so, having rightful access to them, and relied upon by those dealing with him to exercise that high degree of caution and care called for by the peculiarly dangerous nature of this business, can be heard to say that his mistakes by which he furnishes a customer the most deadly of drugs for those comparatively harmless is not, in and of itself, gross negligence, and that of an aggravated form. In a business so hazardous, having to do so directly and frequently with the health and lives of so great a number of people, the highest degree of care and prudence for the safety of those dealing with such dealer is required; and that degree of care exacted of such dealer will be required, also, of each servant intrusted by him with the conduct of his calling. Nor does the court think that it ought to affect the case against the dealer in the least, however careful and attentive the clerk was ordinarily, if on the particular occasion in question he was negligent or grossly negligent.

Pointing Out Physical Signs of Injuries.—The second appellate division of the Supreme Court of New York holds that there was no error, in the personal injury case of Perry vs. the Metropolitan Street Railway Company, in permitting a physician to exhibit the bared body of the party suing to the jury, and to point out thereon physical signs of the injuries alleged to have been sustained. The reason it gives is that such physical exhibition was necessary to a demonstration of the deformity testified to by the physician, and tended to make the description of the injury more intelligible to the jury. It says further that there is a manifest distinction between an exhibition of a deformed body by way of a more intelligent and satisfactory understanding of the injury (and its effects where the extent and character of the injury are challenged), and the exhibition of a dead and severed part of the body, where the injury is unchallenged, and when the purpose of the show is to prove a matter of minor importance fully capable of proof by evidence which has no tendency to influence or to prejudice the jury.

Cross-Examination from Medical Authorities.—In the cross-examination of certain medical experts, in the personal injury case of Clukey vs. the Seattle Electric Company, the experts were asked if such authorities did not lay down certain rules, the attorney reading the language of the rule from the author's work. It was contended that this was an infraction of the rule of evidence against the admission of medical authorities. But the Supreme Court of Washington does not think the rule of law was announced to meet the practice of the kind complained of. It says that these questions were propounded upon cross-examination for the purpose of testing the knowledge of the experts. It would have been competent for the attorney to have stated suppositious cases to the experts. He could properly have stated the rule from memory, asking the experts if such an author did not lay down such a rule. It seems there could be no tenable objection to his reading the rule to the experts. In fact, it is a more exact method, and less liable to make a wrong impression on the mind of the juror, than to cross-examine from memory.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record (N. Y.), February 22.

1 *Gonorrheal Infection of the Prostate. John Van der Poel.
2 *An Eight-Years' Experience in the Radical Cure of Movable Retroversions of the Uterus by Alexander's Operation. LeRoy Broun.
3 *Intermittent Claudication (Intermittent Limping) Due to Obliterating Arteritis. Charles L. Dana.
4 Unilateral Right-sided venous Thrombosis, Associated with Cardiac Disease, Autopsy. John Winters Brannan.

5 *The Management of Critical Cases of Ruptured Extra-uterine Pregnancy, with the Report of a Case of Combined Intra- and Extra-uterine Pregnancy. J. W. Elliot.
6 *Preliminary Note on the Prevention of Nausea and Vomiting Following Ether Anesthesia. Ralph J. Hess.

Medical News (N. Y.), February 22.

7 Some Notes on the British Congress on Tuberculosis. E. G. Janeway.
8 *The Relation between Bovine and Human Tuberculosis. Theobald Smith.
9 *A Plea for an Accepted Nomenclature with Reference to the Classification of Pulmonary Tuberculosis. J. Edward Stubbert.
10 *Some Notes on the Prophylactic Screen in the Treatment of Tuberculous Conditions of the Larynx and Pharynx. Stephen W. Wells.
11 *The Pathology and Etiology of Prostatic Hypertrophy: Suprapubic Drainage and Myomectomy Considered as Methods of Treatment and Cure. Augustus C. Bernays.

Boston Medical and Surgical Journal, February 20.

12 The Significance, Pathological and Clinical, of Abdominal Pain. (To be concluded.) Maurice H. Richardson.
13 *The Treatment of Eclampsia by the Method of Prof. W. Stroganoff. F. S. Newell.
14 *Surgery of the Gall-Bladder and Ducts. (Concluded.) John W. Keefe.
15 On the Value of Modern Methods of Diagnosis and Treatment of Gastro-intestinal Diseases. Richard F. Chase.

Philadelphia Medical Journal, February 22.

16 *On the Relationship between Human and Bovine Tuberculosis. J. G. Adami.
17 Some Points Relating to Renal Calculus. William Bennett.
18 The Progress of Knowledge Concerning Venom and Antivenene. A Synoptical Review of the Literature of the Past Fifteen Years. (Continued.) Joseph McFarland.
19 Orthopedic Cases. Recovery from Pott's Disease Without Deformity, etc. James K. Young.
20 *Surgery of the Spine. (Concluded.) Samuel Lloyd.

American Medicine (Philadelphia), February 22.

21 *The Etiology of Yellow Fever—A Supplemental Note. Walter Reed and James Carroll.
22 *Observations Concerning the Possible Infectiousness of Meat and Milk from Tuberculous Animals. Ernest N. Hutchinson.
23 *An Outline of the Care of the Acutely Insane. Arthur McGugan.
24 *The Indications for Perineal Section in Stricture. G. Frank Lydston.
25 Report of a Case of Pernicious Anemia. G. E. Tyler and C. E. Cooper.
26 Measurements of Chattanooga School-Children. Arthur MacDonald.
27 The Private Medical College. John Madden.

New York Medical Journal, February 22.

28 *A Critical Review of Some of the Recent Literature of Tuberculosis. Jonathan Wright.
29 *General Anesthesia and Its Administration in Throat Surgery. M. L. Maduro.
30 Twenty-three Consecutive Cases of Appendicitis Treated by Operation, with Recovery. William C. Wood.
31 *On the Identification of the Cardiac Neuroses, with Special Remarks on the Nomenclature. James K. Crook.
32 *Practical Pharmacy for the Physician. Edward T. Hargrave.
33 *The "Poultice Method" of Healing Cutaneous and Subcutaneous Abscess Cavities. M. B. Hutchins.
34 The Management of the Tendency of the Upper Fragment to Tilt Forward in Fractures of the Upper Third of the Femur. Russell A. Hibbs.
35 Cretinism. Walter S. Mills.

St. Louis Medical Review, February 22.

36 Prostatectomy: Presentation of Six Operated Cases, with Remarks upon the Technique of the Operation. J. P. Bryson.

Cincinnati Lancet-Clinic, February 22.

37 Gonorrhea, with a Few of Its Complications and Their Treatment. Earl Harlan.
38 *Some of the Uses of Benzoate of Guaiacol, with Illustrative Cases. Samuel E. Earp.

Medical Fortnightly (St. Louis), February 10.

39 Prophylaxis and Treatment of Scarlet Fever. Newton M. Otis.
40 The Symptoms and Diagnosis of Scarlatina. Henry G. Ohls.

Virginia Medical Semi-Monthly (Richmond), February 17.

41 Oculist's Relation to the General Practitioner. A. D. McConachie.
42 Early Diagnosis and Treatment of Hip Disease. A. R. Shands.
43 Choledochotomy. I. S. Stone.
44 Eosolate of Silver for Specific Urethritis; Also for Gonorrheal Conjunctivitis. J. W. P. Smithwick.
45 A Brief Note on the Treatment of Rheumatism by Aspirin. George H. Thomas.
46 The Medical Jurisprudence of Toxicology. N. E. Aronstam and Louis J. Rosenberg.
47 The Value of Sulphate of Quinin in Treatment of Malarial Fevers. Alex. L. Hodgdon.
48 *The Pathology and Etiology of Prostatic Hypertrophy, Suprapubic Drainage and Myomectomy of the Prostate as Methods of Treatment and Cure. Augustus C. Bernays.
49 Technique of X-Ray Therapy. Robert Kienboeck.
50 *Transmission of Consumption. Louis H. Behrens.
51 A Case of Acute Syphilitic Insanity. Sidney I. Schwab.
52 Abdominal Tumors. (Continued.) Jesse S. Myer.

American Practitioner and News (Louisville, Ky.), January.

53 A Résumé of the Surgical Treatment of Tuberculosis of the Peritoneum, Intestines and Genito-urinary Organs. William H. Wathen.

Northwestern Lancet (Minneapolis), February 15.

54 Intestinal Fistulæ. A. W. Abbott.
55 Introductory Lecture on Surgery. James H. Dunn.
56 Symptoms and Treatment of Coal-Gas Asphyxiation. Carl J. Lund.
57 The Alfred Nobel Prizes. G. W. Dahlquist.

Journal of Nervous and Mental Diseases (Nyack, N. Y.), February.

58 *A Case of Myasthenia Gravis. Edwin A. Down.
59 *Report of a Case of Exceedingly Rapid and Very Slow Respiration with Pauses in Respiration Varying from Twenty Seconds to Two Minutes in Duration in a Patient Suffering from Tubercular Meningitis, Syphilitic Peri-arteritis of the Pons and Medulla and from Hysteria. J. T. Eskridge.

Woman's Medical Journal (Toledo, Ohio), January.

60 Puerperal Eclampsia. Frances S. Konrad.
61 Cancer. F. E. Goodsell.
62 The Doctor as an Ethical Leader. Margaret T. Shutt.
63 The Woman Physician in the Country. Jessie T. Shane.

Medical Age (Detroit, Mich.), February 10.

64 *The Influence of Injuries upon the Production of Nervous Diseases. T. W. Nuzum.
65 The Smallpox Epidemic in Alma, Mich.; Is It Smallpox? No. I. N. Brainerd.
66 Cuprol—A New Remedy for the Treatment of Conjunctival Inflammations. Dr. Von Sicherer.

Denver Medical Times, February.

67 *Retinal Lesions of Chronic Interstitial Nephritis. Edward Jackson.
68 Criminal Abortion. E. Stuver.
69 *The Function of the Appendix. E. P. Hershey.
70 Dr. J. T. Eskridge, His Extra-Professional Character. W. P. Munn.
71 Parkhill—The Teacher of Medicine. Robert Levy.
72 The Emergency Treatment of Dysmenorrhea. D. W. Van Gilder.

Kansas City Medical Record, February.

73 Pleurisy. H. Jerard.
74 Conjunctivitis. A. C. Graves.
75 Some of the Evils of Uric Acid. E. L. Chambliss.

Journal of Cutaneous and Genito-Urinary Diseases (N.Y.), February.

76 *Colloid Degeneration of the Skin. Charles J. White.
77 Vegetating Dermatitis Developing During the Course of Infantile Eczema. Grove W. Wende and Herman K. Degroat
78 *Vaccinia Generalisata, with Report of a Case. M. L. Heidingafeld.

Journal of the Association of Military Surgeons (Carlisle, Pa.), February.

79 Résumé of the History of the Medical Department of the United States Army, from 1777 to the Beginning of the Spanish-American War. John Van Rensselaer Hoff.
80 The Sanitary Service of the English Army. John Stewart Kulp.
81 Emergency Herniotomy with Secondary Enterostomy and Occlusion of a Portion of the Ileum. John H. Hewitt.
82 Multiple Shot Wounds of the Hand and Forearm. F. W. F. Wieber.
83 The Militia Medical Officer and His Papers. Charles C. Foster.
84 The Mahan Board in Action. Dudley N. Carpenter.

New Yorker Medicinische Monatsschrift, January.

85 *Ueber Parametritis Posterior. L. A. Ewald.
86 Behandlung des Abdominaltyphus. G. Mannheimer.

Indiana Medical Journal (Indianapolis), February.

87 Recent Advances in Psychiatry and Their Relation to Internal Medicine. Stewart Paton.
88 Acute Ascending Paralysis Following Typhoid Fever. G. C. Schaeffer.
89 Abdominal Hysterectomy for Multiple Fibroma with a Five-Month Gravid Uterus. George R. Green.
90 The Significance of Heredity in Insanity and Its Influence in Prognosis. Max A. Bahr.
91 A Consideration of Smallpox. Nelson D. Brayton.
92 Tetanus Following Vaccination. Walter N. Sharp.

Chicago Medical Recorder, February 15.

93 *The High Retraction Ring as a Contraindication to Version. Rudolph W. Holmes.
94 The Diagnosis of Pericarditis. Arthur R. Edwards.
95 *Posterior Urethral Reinfection from the Bladder. Louis E. Schmidt.
96 Kroenlein's Operation for Exposure of the Posterior Orbital Space, Without Removal of the Eye. E. F. Snydacker.
97 Exophthalmic Goiter. Edward F. Wells.
98 A Case of Lipomatous Perinephritis, Following Chronic Suppurative Pyelitis; Nephrectomy; Recovery; Demonstration of Specimen. Svenning Dahl.

Atlanta Journal-Record of Medicine, February.

99 Difficulties in the Management of the Social Evil. George R. White.
100 Objects of the Organization. R. R. Kime.
101 Society, Parturition, and Posterity. Ralph M. Thomson.
102 Negro Traits. E. G. Ferguson.

Medical Herald (St. Joseph, Mo.), February.

103 On the Use of Gartner's Tonometer. LeRoy Crummer.
104 Clinical Examination of the Blood. L. H. Warner.
105 How to Prescribe. A. Herring.

American Journal of Obstetrics (N. Y.), February.

106 *Fibromyomatous Tumors of the Vagina. Richard R. Smith.
107 *Significance of Fever During the Puerperium. John F. Moran.
108 Six Cesarean Sections. Edward P. Davis.
109 Report of Three Cases of Cesarean Section, One Complicated by Pyosalpinx. Stricker Coles.
110 A Case of Cesarean Section. Richard C. Norris.
111 Pelvic Lesions in Relation to Their Distinctive Effects upon Mental Disturbances. A. T. Hobbs.
112 *A Case of Non-Surgical Premature Menopause. Josephine Walter.
113 On the Etiology, Histology, and Usual Course of Ectopic Gestation. Samuel W. Bandler.
114 A Case of Myosarcoma of the Uterus. Mary Putnam Jacobi and Martha Wollstein.
115 Use of Adhesive Straps for the Prevention of Laceration of the Perineum in Forceps Delivery. George H. Noble.
116 A Few Unusual Conditions in Gynecological Practice. J. M. Baldy.
117 Criminal Abortion. Edward A. Balloch.
118 The Half-hitch Suture: A New Suture for Use in Anterior Colporrhaphy. Charles P. Noble.
119 A New Method of Tamponing the Uterus for Postpartum. Rudolph W. Holmes.

Bulletin of the Cleveland General Hospital, April, 1901 (received Feb. 11, 1902).

120 A Study of the Nervous Complications and Sequelæ of Pneumonia. Charles J. Aldrich.
121 Ovarian Pregnancy: Is It an Explanation of Ovarian Hematomata? N. Stone Scott.

Therapeutic Monthly (Philadelphia), January.

122 Whooping Cough and Its Modern Treatment. Theodor Zangger.
123 *Some Points in the Treatment of Locomotor Ataxia. John K. Mitchell.
124 The Indifferent Compounds of Iron. Virgil Coblentz.
125 Symptomatic Anemia—Its Diagnosis and Treatment (with Concentrated Nourishment), with Reference Also to Special Blood Technique. Thomas J. Yarrow.
126 Static Electricity in the Diagnosis and Treatment of Hysteric Affections. G. Betton Massey.
127 An Investigation into the Presence of Infective Material in Dwellings Occupied by Consumptive Persons. Harold Coates.
128 The Treatment of Appendicitis; A Plea for Fewer Laparotomies. L. W. Atlee.

Proceedings of the New York Pathological Society, October and November, 1901.

129 A Case of Glanders in the Human Subject. Warren Coleman and James Ewing.
130 A Case of Idiopathic Acute Diffuse Phlegmonous Gastritis. O. H. Schultze.
131 Observations on the Technique of Frozen Sections. F. C. Wood.
132 Preliminary Communication of Experiments upon the Feeding and Inoculating of Calves with Human Tuberculous Material. W. H. Park.
133 The Production of Coma in Monkeys from Intravenous Infusions of Beta-Oxybutyric Acid. C. A. Herter.
134 Intramedullary Degenerations of the Central Nervous System Secondary to Brain Tumor. M. G. Schlapp.
135 A Simple Apparatus for the Anaërobic Cultivation of Bacteria. Edward K. Dunham.
136 A Case of Miescherschen Schlauche in the Heart of an Elk. Harlow Brooks.
137 Postmortem Changes in the Pancreas Simulating Fat Necrosis; Adenocarcinoma of the Kidney. O. H. Schultze.
138 A Case of Ruptured Abdominal Aneurysm Simulating Hemorrhagic Pancreatitis. L. A. Conner.
139 A Case of Pernicious Malarial Fever. L. T. Lewald.
140 Specimen of Hour-Glass Contraction of the Stomach. L. T. Lewald.
141 A Case of Glanders in the Human Subject. N. B. Potter.

St. Louis Courier of Medicine, February.

142 Preparation of Patients for, and Their Treatment after Laparotomy. Frederick Holme Wiggin.
143 *True Torticollis. Phil Hoffman.
144 The Successful Treatment of Endometritis and Ulceration by the Use of the Intra-uterine Medicator. Samuel L. Kistler.
145 Complete Transposition of Viscera: A Report of Three Cases. W. C. Mardorf.

Pacific Medical Journal (San Francisco), February.

146 Nervous Gastric Diseases. Alfred W. Perry.
147 Lessons from Lyrychic Quackery. Ernest Hall.
148 A Few Comments upon Rohleder's New Work on the Sexual Instinct and the Sexual Life. V. G. Vecki.

Texas Medical Journal (Austin), February.

149 Aspiration in Knee-Joint Effusion After Traumatism. R. Menger.
150 Dr. Winfield Ayres' Experience with Mercurol in the Treatment of Syphilis. G. Frank Lydston.

New England Medical Monthly (Danbury, Conn.), February.

151 Autobiography of the Late J. Milner Fothergill, M.D., London, England. (To be continued.)
152 The Relational Use of Antiseptics. L. H. Warner.
153 Uric Acid Diathesis. J. McD. Massie.
154 Treatment of Pulmonary Tuberculosis by Carbonic Acid. Hugo Weber.
155 Notes on the Treatment of Cough. Henry Herman.
156 A Thought About Diphtheria. James A. Hopkins.
157 Argentamine in Ocular Therapy. A. Darier.
158 The Value of Gude's Peptomangan in the Treatment of Anemia. Hugo Summa.
159 Beta-Eucain as an Anesthetic. John Moir.
160 The Successful Treatment of Endometritis and Ulceration by the Use of the Intra-uterine Medicator. Samuel L. Kistler.
161 Formalin in Skin Diseases. Heinrich Loeb.

Medical Summary (Philadelphia), February.

162 The Successful Treatment of Endometritis and Ulceration by the Use of the Intra-uterine Medicator. Samuel L. Kistler.
163 Pruritus and Eczema of the Anus and Rectum. George J. Monroe.
164 Induction-galvani-faradism. Wm. A. Armstrong.
165 The Difficulties of Treating Enuresis in Children. M. McCreary.
166 Practical Therapeutics. Robert C. Kenner.

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1. **Gonorrheal Prostatitis.**—The frequency, symptoms and diagnosis of this condition are discussed by Van der Poel. He insists on the importance of the prophylactic treatment to prevent gonorrheal inflammation reaching the posterior urethra by instituting treatment in the first 24 to 48 hours. He seems to have faith in protargol as a remedy. The prophylaxis, however, is not always effective, and when this occurs irrigations alone are not sufficient, but massage of the organ must be practiced. He believes in digital massage and describes the treatment by cold and heat. The earlier the cases are seen and treated the less the chance for extension to the epididymis. In the lighter form of gonorrheal prostatitis the prognosis is good, but severe parenchymatous inflammations may lead to serious consequences and are apt to be of long duration. When the abscess occurs, the point of rupture or involvement of neighboring tissues determines the danger of the case.

2. **The Alexander Operation.**—Broun describes his method of performing the Alexander operation in such detail that a full abstract can not be given here. He states that he has followed up with care all the 230 cases operated on at the Woman's Hospital up to January, 1900, as also those which have occurred in his own private practice and finds but one in which the uterus has resumed its backward position. He prefers, for the attachment of the ligaments, to use the black-silk ligature, thoroughly boiled and left in the water until used. An important part of the operation is the preservation of the nerve, which is sometimes caught in the cicatrix after it is severed, producing pain. He notices the complication of hernia following operation and thinks it is due to faulty details of operation either at the external or internal abdominal ring.

3. **Intermittent Claudication.**—Dana describes a case and reviews briefly the literature. His summary is given as follows: "There is a group of symptoms characterized by intermittent or temporary attacks of paralysis, usually of one leg, accompanied with pain, parasthesia, stiffness, and vasomotor disturbances, and absence of pulsation of one or both foot arteries. It is chronic in course and may lead to gangrene, or symptoms resembling erythromelalgia or Raymond's disease. It affects oftenest one leg, but may attack both, and may affect the arm. It occurs in middle-aged people of neurotic temperament, is due to, or associated with, exposure, alcoholism, gout, diabetes, excessive use of tobacco, and syphilis. It is due to arterial sclerosis, causing obliteration of the smaller arteries, also to disease such as aneurysm of the large trunks. The trouble has been called painful paralysis, intermittent claudication, intermittent limping, and, perhaps most appropriately, intermittent muscular paralysis, due to arterial sclerosis. The diagnostic points are the absence of the foot pulse and the symptoms above enumerated."

5. **Extra-Uterine Pregnancy.**—From the observation of 20 cases, all of which recovered, and from cases seen in consultation, Elliot favors a conservative method of waiting until reaction from the shock before operating. Hemorrhage after rupture has a tendency to stop and recur, and probably clot and thus prevent further recurrence. Moreover, the blood is not wholly lost to the patient, but is more or less re-absorbed by the peritoneum. It requires the best surgical judgment to know the right moment for operation and it is always safer to wait than to operate in doubtful cases. When the operation

is to be done it should be done quickly and without excessive handling. Elliot usually scoops out enough clotted blood to find the uterus. He then quickly passes a ligature around the uterine end of the affected tube, which sometimes stops active bleeding, and is a useful handle to pull the tube into view. He next passes a ligature around the other end of the tube and removes the tube from between the ligatures. He never tries to wash out the abdominal cavity or to clean out the clots, because the blood in the abdomen is just what the patient needs, while the manipulation required to remove it takes time and produces shock. He usually closes the abdomen without drainage. He reports a case of combined intra- and extra-uterine pregnancy, calling attention to special points of interest in the case.

6. **Ether Anesthesia.**—Iiess attributes vomiting in ether anesthesia to the excretion of ether by the mucous membrane of the stomach, where it acts as a gastric irritant, subsequently causing gastritis. He gives the results of some experiments on animals demonstrating this fact. To prevent the irritant effect of ether on the stomach requires simply the dilution of the ether as it is excreted. A glass of water drunk at the commencement of anesthesia serves to hold in solution considerable ether. Limiting the amount of ether used and the strength of the vapor is always an important factor. This will help to prevent excess of secretion of mucus in the larynx and bronchi, which, when swallowed, adds to the gastric irritability.

8. **Bovine and Human Tuberculosis.**—Smith considers the clinical evidence in favor of the inter-transmission of bovine and human tuberculosis to be comparatively weak, that inoculation experiments are not valid as regards the probability of contagion, and that inoculation does not under all circumstances correspond to natural infection. He describes the morphologic differences between bovine and human varieties. His provisional conclusions deduced from the biologic facts of various types of tubercle bacteria are given as follows: 1. There is no evidence to show that bovine tubercle bacilli may indiscriminately infect the human subject. 2. There is some evidence that bovine bacilli have been isolated from human beings, that the successful transfer is uncommon and that it depends on certain conditions which need careful clinical and pathological study. 3. The evidence that such transmission takes place must be based on the isolation of tubercle bacilli having the characters of the bovine variety. The attitude which these conclusions would lead us to assume toward bovine tuberculosis, at least for the present, does not differ appreciably from that now generally maintained. Periodical rigid inspection of dairy-herds, looking toward the elimination of all animals with suspicious disease of the udder or tending toward emaciation, should be maintained. Beyond this sanitarians can not well go, but every effort should be made to encourage publicly by suitable official recognition those who use the tuberculin test in purifying dairy-herds. Bovine tuberculosis is at best an agricultural calamity and its widespread diffusion and frightful ravages should arouse even the most conservative to bring about by individual effort rather than with the help of the public purse the rehabilitation of the dairy-cow. [See also ¶16 below.]

9. **Tuberculosis.**—Stubbert's article is a plea for a more standard classification of the different stages or conditions of tuberculosis, giving comparative statements from different authorities in regard to the meaning of the terms: pre-bacillary, incipient, moderately advanced, far advanced, improved, arrested, partially cured and cured.

10. **The Prophylactic Screen.**—Wells recommends the use of a screen by the laryngologist in examining tuberculous patients and illustrates his apparatus.

11.—See also ¶48 below.

13. **Eclampsia.**—Stroganoff's method of treating eclampsia by the administration of oxygen during convulsions, the use of morphia and chloral for their control, cardiac stimulants when the heart action weakens, prompt delivery when convulsions do not yield to treatment, a milk diet and the avoidance of all depressing influences, has been tested in the Boston City Hospital, and Newell reports the results as follows: 1. In postpartum eclampsia the use of morphia and chloral in combination seems to have a distinctly beneficial action in controlling the convulsions. 2. In antepartum eclampsia the treatment is less efficient than in the postpartum form, but the course of the disease seems to be altered for the better in the majority of the cases. 3. Although the treatment has not given as good results in our cases as in those reported by Stroganoff, a further trial is indicated, since our results have not been any worse than under any other method of treatment which has been tried, and further experience may disclose errors in the application of the treatment which may be remedied to good effect. At any rate, a method of treatment which has proved so efficient in the hands of its originator should not be abandoned until it has had a more thorough trial than we have been able to give this one as yet.

14. **Surgery of the Gall-Bladder and Ducts.**—The first part of this article, which appeared in the preceding issue, is largely a critical summary of the literature of the subject. In the present one he mentions points of diagnosis, question of heredity, previous illness, character of pain, fever, percussion, etc. He thinks early operation will be more frequently resorted to as the medical practitioner becomes more familiar with the correct diagnosis of the disease of the biliary passages. The article concludes with a report of eight cases and a bibliography.

16. **Bovine and Human Tuberculosis.**—Adami summarizes his conclusions, in substance, as follows: 1. Bovine tuberculosis is easily conveyed from cattle to cattle. 2. Human tuberculosis is transmissible to cattle. Pure cultures of these bacilli rarely cause infection. Mixtures of tubercle bacilli with other micro-organisms (as in sputum) appear to be more infectious. The difficulty in inducing artificial tuberculosis favors the idea that natural infection of cattle with human tubercle bacilli must be of singularly rare occurrence. 3. Swine appear to be fairly easily infected with both human and bovine tubercle bacilli and when infected with the former these gain an increased virulence for guinea-pigs and rabbits. But while through the use of infected milk these animals become frequently infected from cattle, conditions favoring the reverse process are rare. For practical purposes, this mode of infection may be neglected. 4. If this be so, it should be possible to eradicate bovine tuberculosis in a region in which human tuberculosis continues to be widespread. 5. Human tuberculosis in the majority of cases is conveyed from man to man by inhalation; more rarely it is conveyed through the alimentary tract, still more rarely through the genital tract, through surface wounds, and from the mother to the fetus during intrauterine life. 6. Everything points to the fact that in the main the bacilli causing infection in man are derived from previous cases of the disease in man. 7. By sojourn in the human body and passage from man to man the human tubercle bacilli have acquired properties differing from those acquired by bacilli which have passed through cattle: their shape differs, the rate of growth and the appearance of the growths outside the body are different; their virulence toward the animals of the laboratory is also different. 8. These differences are not, however, sufficiently marked or constant enough to permit us to conclude that we are dealing with distinct species. 9. Bovine tuberculosis can be transmitted to man through wounds or the digestive tract. 10. By passage through cattle the tubercle bacillus gains increased virulence for cattle, rabbits and guinea-pigs, but lessened virulence for man. 11. Save in the very rare cases of wound infection, there is a significant lack of evidence that bovine tubercle bacilli infect adult human beings. 12. Infants and those of early age are liable to be infected by the tubercle bacilli of bovine origin and this through the agency of milk. 13. Even with children a consideration of the great frequency of bovine tuberculosis in certain regions and of the absence of any record of tuberculosis affecting those supplied from a given "milk round," leads to the conclusion that the bovine bacilli have not heightened virulence. 14. The few positive records we possess of direct transmission of tuberculosis from cattle to man through the agency of the milk indi-

cate that infection is brought about only by the employment of milk of cattle which are very extensively diseased, more especially of those suffering from udder disease. 15. Animals showing physical signs of tuberculosis, and, above all, those exhibiting udder tuberculosis, should therefore be condemned and their milk not be used for food. 16. Where there is tuberculosis in a herd, Bang's method should be employed, the animals reacting to tuberculin being separated from the healthy ones; the milk from the reacting animal, for whatever purpose used, should be Pasteurized so as effectively to destroy the tubercle bacilli.

20. **Surgery of the Spine.**—This is the conclusion of an article which reviews the performance of surgery for various conditions, such as tumors, hemorrhage, spina bifida and fractures. The subjects of Pott's disease and tumors are then taken up, and the author finishes with some remarks in regard to spinal anesthesia. While he considers the method still *sub judice* and not unattended with danger, he points out its advantages. No contra-indication to its use in the areas in which it is applicable has as yet developed, save those pertaining to the mental state of the patient and purely esthetic consideration. Of the latter the operator must be the judge and choose between general anesthesia and subarachnoid lumbar puncture, with due regard to the patient's own ideas so as not to interfere with his psychic morale. The whole article is a critical summary of the general facts in regard to surgery of the spine.

21. **Yellow Fever.**—Reed and Carroll, in this supplementary note, review and detail some of their experiments with the blood of yellow fever cases, both in its unheated and partially defibrinated condition, which partially defibrinated blood heated for ten minutes at a temperature of 55 C., and with the dilute serum which had been filtered through a Berkefeld filter. The object was to ascertain, if possible, whether the blood of a yellow fever patient contained specific micro-organisms as minute as are apparently those of the foot and mouth disease of cattle and certain acute infectious diseases. Test experiments with unheated and partially defibrinated blood produced mild attacks of yellow fever. The partially defibrinated and heated blood gave negative results, while filtered and defibrinated serum also produced in two cases unmistakable attacks. In one case the result was negative. They tested the filter by attempting to pass cultures and staphylococci through it and proved that it was incapable of delivering the ordinary bacilli. He thinks this matter of extreme interest and importance as bearing on the theories that yellow fever might be due to a toxin of considerable potency, or that the specific agent of yellow fever is of such minute size as to pass readily through the pores of the Berkefeld filter. Against the view that a toxin is present in the serum filtrate, the innocuousness of heated blood shown in three cases is important. Though certain bacteria are destroyed at this temperature, we know of no bacterial toxin that is rendered inert by such a low degree of heat continued for so short a time. As a further test they observed the effect that would follow the transference to a third individual of the blood drawn from one of the patients whose attack had been caused by the injection of serum filtrate. If the inoculation of that small quantity were followed by an attack of yellow fever in the third individual evidence would point in the strongest way to the presence of a specific agent of the disease in the blood, since we can hardly believe that the toxin that had undergone so great a dilution in the body of the second individual would still be capable of producing the disease. Experiments showed that yellow fever can be thus produced, and taking into account all the facts in the case they therefore hold that the specific agent of yellow fever passes through the filter.

22. **Tuberculosis Infection.**—Hutchinson finds that animals in cattle ranges are not free from tuberculosis and insists on the importance of tuberculin examination of dairy animals and the withdrawal of tuberculous meat and milk from use by human consumers.

23. **Treatment of Insanity.**—The points especially mentioned by McGugan as of importance in the treatment of insanity are rest and exercise, massage in connection with the rest cure, care as to diet, hydrotherapy for sedative, tonic and eliminative purposes, surgery (gynecologic) in suitable cases where abnormality exists, electrotherapy in depressed states, the use of hynotics and motor depressants in certain cases, sedatives and general tonics. For instance, in a recent case coming to the hospital the first thing is a bath; the patient is put to bed in a quiet room; general and physical examination for diagnostic purposes are made with great care and psychologic analysis carried on over an indefinite period. If this is not sufficient in excited cases, sulfonal, combined with bromid or hyoscin, is administered. In the depressed type the prolonged tepid bath is prescribed, followed by a light superficial massage; simple enemas are given every second day for two or three weeks; the static spark is applied to the spine and the crown breeze to the head; rest for the first few days is ordered, followed by gradually increasing the exercise. He says that out of 319 acute cases admitted during three years, 108 were subsequently diagnosed incurable and transferred to the different wards of the asylum. Of all the 211 remaining, 104 were discharged restored, 44 improved, 13 died and 50 still remain under treatment.

24. **Perineal Section in Stricture.**—Lydston maintains that perineal section is often advisable, especially in traumatic strictures even if not extensive, and in those complicated by fistulas or severe cystitis. Deep stricture complicated by retention of the urine should be, as a rule, treated conservatively—that is, temporized with at first—the ultimate treatment being decided later. But in some instances, as in hospital practice and in patients coming from a distance, immediate perineal section is the safest procedure. The same is true where the patient does not have access to skilled attention during the after-care of the case. Impermeable stricture is exceptional, but not so infrequent as some would have us believe and perineal section in such cases without a guide may be necessary. Experience has taught Lydston that under these circumstances where the urethra can not be found in the perineum, except by tedious and extensive dissection, it is far better to make a suprapubic cystotomy and perform retrograde catheterization. The surgeon who has had but little experience with perineal resection, called on to operate in such cases, had far better enter the bladder from above and combine the perineal and suprapubic cystotomy.

28. **Tuberculosis.**—Wright goes over some of the recent points in the literature in regard to tuberculosis, calling attention to the importance of individual resistance and holding that the present state of our knowledge does not warrant isolation or inconvenient regulations affecting patients. The idea of the extirpation of the tubercle bacillus, he thinks, is a little too ideal and he quotes Grawitz to this effect. Other points mentioned are the question of human and bovine tuberculosis with their virulence in different cases, the pleomorphic nature of the germ as shown by Heuppe, and the danger that bacilli resembling the tubercle bacillus will lead to errors in diagnosis. At present there is no room for dogmatic assertions in regard to the condition.

29. **Anesthesia in Throat Surgery.**—From an observation of the various ways of administering nitrous oxid as a preliminary to ether, Maduro concludes that it should be carefully ascertained that the valves of the gas apparatus fit accurately, so that there may be a rapid exit of atmospheric air from the lungs. A certain amount of re-breathing of nitrous oxid should be allowed at the end of its inhalation, in order that a longer gas and a shorter ether anesthesia may be obtained. The transition to ether should be accompanied by a rather free admixture of air through the various inlets in the apparatus without removing its face-piece. Lastly, the head of the patient should be well drawn back, and forward pressure made on the jaws, at the time of the transition to ether, so that the air-way may be increased to its utmost. Maduro amplifies on these recommendations, giving reasons for each. The actual time necessary for all the details and until the patient is ready for the operation should average about five minutes. As regards

other anesthetics, he would give chloroform a very limited field. Its tendency to cause laryngeal closure in conditions of obstructed breathing through disease must be given some thought, and the danger of pushing it should be remembered. The same is true to a greater or less extent of mixtures containing chloroform; ethyl chlorid acts disadvantageously in these cases, and ethyl bromid is too evanescent and far from safe.

31. **Cardiac Neuroses.**—Crook's article goes over the nomenclature of cardiac neuroses. Palpitation, tachycardia, neurasthenia cordis, arrhythmia and angina pectoris may be regarded as distinct separate conditions. Bradycardia itself is largely a secondary condition, not, as in tachycardia, the principal symptom group in the disease. Arrhythmia and tremor cordis are really not diseases, but symptoms. He considers it not altogether correct to call Graves' disease a cardiac neurosis. True angina pectoris is always accompanied with organic disease and is no more a neurosis than is atheroma or endocarditis. Pseudo-angina is indisputably a neurosis. The recognition of true angina, he says, should not be difficult. No other condition presents the same complex of symptoms—sudden irradiating pain, squeezing, tightening, constriction, overwhelming fear of immediate death. From pseudo-angina it is distinguished by its occurrence almost invariably in males past the meridian of life and by its greater severity. Huchard's aphorisms, while not infallible, are important: Every angina produced by effort is a true angina; every angina which occurs spontaneously without effort is a false angina; but an angina occurring at night, though independent of effort, is a true angina. The absence of all signs or symptoms of organic disease of the heart creates a presumption in favor of pseudo-angina.

32. **Practical Pharmacy for the Physician.**—The question as to how practitioners are to acquire a practical knowledge of pharmacy can only be answered in general. Hargrave suggests to those who write prescriptions: 1. Study the properties of drugs and preparations used whenever an opportunity occurs. 2. Carefully inspect every prescription written when filled by a competent pharmacist. 3. Study the subject of incompatibility. To those who dispense their own drugs he suggests: 1. Study the subjects of extemporaneous pharmacy and incompatibility in any text-book on pharmacy. 2. Note the appearance, odor, etc., of all drugs and preparations handled, and avoid the indiscriminate mixing of drugs without regard for their properties. 3. Be careful, accurate and neat in every manipulation.

33. **The Poultice Method in Abscess Cavities.**—The method here discussed was first described in the Atlanta *Journal-Record of Medicine* for April, 1900. Hutchins suggests applying over the opening of the abscess a poultice of flaxseed meal, made with 3 per cent. carbolic instead of plain water. A thin cloth or gauze layer can be put next to the opening. The 3 per cent. of carbolic acid really becomes about 1 per cent. in the mixture and is hence very weakly germicidal. Absolutely nothing is put in the abscess cavity; it is simply emptied of pus by pressure—through a small opening—if not already open. The poultices are changed as often as cleanliness or their getting dry requires. The wet poultice affords constant drainage and absorbs the discharge. There is no premature union of the mouth of the cavity, no introduction of foreign substances, no reinfection in dressing and the saving of 75 to 80 per cent. in the time of healing. The small incision may be used instead of the free and long one. He reports a number of cases which he thinks show the superiority of this method over the usual one.

38. **Benzoate of Guaiacol.**—Earp finds this substance one of the best methods of using guaiacol, being comparatively tasteless and odorless, doing away with the annoying eructations and the gastro-intestinal irritation. He uses from 3 to 6 grains dry in capsules, four times a day, with gradual slight increase in dose if deemed advisable. In phthisis he finds four favorable results, partial subsidence of cough, diminished expectoration, enhanced appetite and increase in flesh. In some cases these results were very pronounced. He has also found that certain catarrhal conditions of the intestines and irritable states of the bladder are sometimes relieved during the administration of this drug.

48. **Prostatic Hypertrophy.**—The subject of prostatic hypertrophy is gone over at some length by Bernays, who sums up his conclusions in the following: 1. In old cases of hypertrophied prostate, palliative measures are sometimes preferable to radical measures. 2. Drainage of the bladder by the suprapubic route is preferable to perineal drainage in cases of cystitis, because the suprapubic method gives the sphincter apparatus more complete rest than the perineal buttonhole or fistula. 3. In cases of hypertrophy in which the patient's health has not been injured by chronic cystitis or nephropyelitis, the dangers of myomectomy or perineal prostatectomy are minimal, and in these cases a radical and satisfactory functional result can be achieved by myomectomy. 4. Bottini's operation must be regarded as a palliative measure, intended to enable the patient to evacuate his bladder more completely than before. It will probably have a very limited usefulness and will be crowded out of practice as the technique of myomectomy or perineal prostatectomy is perfected. 5. Bottini's operation is a dangerous operation and must not be undertaken unless most careful measurements have been made. It is often followed by extravasation of urine into the perineum, and the perineal section must be done in order to save the patient's life as soon as swelling of the perineum is noticed. 6. Myomectomy done through a perineal incision is the operation which promises the best results, and is the operation of choice. It is applicable to the greatest number of cases in which permanent cure may be expected, the kidney being physiologically sufficient and unimpaired. The greatest dangers associated with prostatectomy are produced by injuring or removing parts of the capsule of the organ. Myomectomy must be done without this dangerous manipulation. As long as the capsule is left intact there is but little hemorrhage, and the danger of infiltration of urine and sepsis is reduced to a minimum.

50. **Transmission of Consumption.**—Behrens, reviewing the evidence in regard to the transmission between men and animals, concludes that human sputa are predominant in the transmission of tuberculosis; that hereditary consumption is rare and that predisposition is inherited; that immunity is rendered to off-spring born during the tubercular disease of the parent is far from being proven; that milk, meat, cheese, butter, etc., derived from tuberculous animals, can produce tuberculosis in the human being is his belief. He thinks that more stringent rules regarding expectoration, isolation, hygiene and sanitation should be enforced, and as a result consumption would belong to that class of diseases such as scurvy and smallpox, often heard of but seldom seen.

58. **Myasthenia Gravis.**—Down reports a case in detail and discusses the diagnosis, symptoms and etiology. He finds nothing that can be properly considered a cause. Thus far no satisfactory treatment has been discovered. He advises prolonged rest, nourishing food, attention to the excretions and brief periods of exercise.

59. **Respiration in Tubercular Meningitis.**—The case reported by Eskridge is that of a woman whose respiration varied during her illness from 8 to 138, but usually was rapid. He discusses the hysteric element in the case and its probable organic pathology involving the respiratory centers. He thinks in this case that the subordinate centers of respiration, the cutaneous, optic and auditory nerves, those of the lungs, cord and cerebrum, were practically held in abeyance by the predominating centers of respiration in the medulla, which were directly irritated by a lesion in the medulla. He thinks the influence of the blood on the centers of respiration was overpowered. He says, in conclusion, that in a case of hysteria we may perceive the veil that obscures or the cloak that hides the symptoms of organic disease, or grave disorders of functions in some important organ. Respiration, which is more rapid while the patient is asleep, is strong if not positive evidence of organic disease of the brain in the region of the respiratory centers.

64. **Traumatic Neuroses.**—Nuzum concludes from both clinical and experimental investigations that slight injuries

may produce spinal neuroses, but that sprains are often mistaken for severe injuries and that the majority of cases against great corporations are either feigned or exaggerated. Traumatic hysteria is very intractable to treatment and death may occur without any physical lesions being found either before death or at the postmortem. Injury may be the exciting, not the remote, cause of locomotor ataxia, but epilepsy, apoplexy, and paralysis agitans may be caused directly and wholly by a traumatism. Generally, however, the prognosis is one of ultimate recovery. In traumatic nervous injury the more serious symptoms of organic nervous disease are present. From experiments on rabbits he comes to the following conclusions: 1. Concussion of the spine, causing loss of function for a variable length of time with physical lesion, is readily produced by a blow directly on the back. 2. The degree of concussion depends upon the force of the blow, and may be of momentary duration or last for days or weeks. 3. A blow on the back of the neck may prove immediately fatal without producing any visible injury. 4. It is difficult, if not impossible, to produce concussion of the spine by a blow upon the nates. 5. Rabbits that were subjected to repeated experiments did not show such marked nervous phenomena as they did the first time. 6. The microscope shows a tigrolysis and pycnosis of the tigroid of a considerable number of the ganglion cells of the motor roots, in cases that have suffered from concussion of the spine.

67.—See abstract in THE JOURNAL, xxxvii, p. 852.

69.—Ibid.

76. **Colloid Degeneration of the Skin.**—White's article is largely a critical review of the literature in regard to this condition, which has been mentioned and described by Unna, and which consists in the breaking down of the fibrous tissue and the combination of collagen and elacin and the further disintegration into the homogenous mass known as colloid. A case is described with microscopic characteristics.

78. **Vaccinia Generalisata.**—After reporting a case, Heidingsfeld discusses the possible methods of its origin. He disbelieves in the inoculation theory in this case and says that in all probability there are two separate types of eruption in these cases, one due to direct inoculation or misdirected virus, of shorter duration, persisting until vaccine immunity establishes itself, and characterized by lesions of the vaccine pustule; and another the result of systemic intoxication of variable duration, with lesions atypical to the vaccine pustule, both as regards course and appearance. Both require special idiosyncrasy on the part of the patient and have nothing in common with localized complications like erysipelas and eczema.

85. **Parametritis Posterior.**—The affection thus designated by Schultze consists in an inflammatory affection of the rectouterine muscles, springing from the wall of the uterus. Ewald reports cases and discusses the nature of the affection. His conclusions are: 1. The parametritis posterior of Schultze and the paraproctitis of Freund (also called parametritis atrophicans) are one and the same disease, in fact a disorder of the connective tissue and not of the peritoneum. 2. Parametritis posterior is commonly combined with inflammatory processes in the peritoneum and disease of the tube and ovaries. When retroflexion also exists ventrofixation is indicated and is to be preferred to other methods of treatment.

93. **The High Retraction Ring.**—The existence of the high retraction ring as a contra-indication to version is treated of by Holmes, who describes the mechanism, diagnosis and therapeutic considerations. The object of his paper is to call attention to the importance of this condition in the mechanism of abnormal labor and its prohibition of a certain obstetric operation, rather than to go into the minutiæ of anatomic details or operative technique. He thinks obstetricians should endeavor to detect this as a routine practice, and as the question of version arises it should be determined before extreme distension of the lower segment begins. Usually the high retraction ring follows the more or less prolonged escape of liquor amnii. With intact membranes at the moment of beginning the version the hazard of rupture is greatly reduced, for the version may be carried out before the uterus has had time to retract. When in doubt as to the advisability of performing version it is perfectly permissible to prepare for the operation, to pass the hand into the lower segment very cautiously, and if it is thin and the ring high one can with propriety remove the hand and proceed to another method of delivery.

95. **Urethral Reinfection from the Bladder.**—The acute relapses in chronic urethral disease include a peculiar type first noticed by Harrison, which can be proven to be due to reinfection from the bladder. The preliminary symptoms are cystitis following some indiscretion of diet or other cause. The patients are taken suddenly ill, sometimes with a chill, then a fever, and in the course of two or three days a urethral discharge makes its appearance, which is usually never copious, varying somewhat in color and consistency, with typical signs and symptoms of posterior specific urethritis. Cystoscopically we find the trigonum to be the seat of chronic inflammation and the posterior border of the internal urethral orifice is swollen. The epithelial cells are edematous, and in cases usually called urethro-cystitis the entire posterior urethra is similarly affected, but in cases where the urethra has not yet become affected there is a sharp line of demarcation. The practical deductions which he makes from the facts are that every case of apparently cured chronic posterior urethritis, if doubt exists, should be cystoscoped in order to recognize any latent bladder disease. If such is present it should be treated accordingly. If necessary the entire granulating surface of the trigonum can be thoroughly curetted in order to obtain a permanent cure.

106. **Vaginal Fibromyomata.**—From an extended study of the subject with reported cases, Smith summarizes as follows: Fibroma (myoma and fibromyoma) of the vagina is a rare disease. It occurs most frequently in women between 30 and 40, but has been observed at ages ranging from 20 to 70. The cases observed in infants are open to some doubt as to diagnosis. It apparently occurs independently of civil condition. No proof can be deduced to show that it affects fertility. It may obstruct labor when large. When the growth is small it rarely affects coitus, and may not do so even though the growth be large. There is some evidence that in certain cases menstruation may be increased. The tumors, when small, rarely produce symptoms of consequence; when large they may prove to be the source of considerable suffering and even danger. The symptoms, when present, are pain, hemorrhage, discharge, obstruction to bladder and rarely to bowel. No exact division of the case into fibroma, myoma and fibromyoma can as yet be made. The term fibromyoma will probably cover most of them, but pure fibroids have been observed. Pure fibromyomata may also exist. The tumors grow from anterior or posterior wall in proportion of about 2 to 1. They may be sessile or polypous. They vary greatly in size and are usually single. They are, as a rule, very slow of growth and prone to edema, necrosis and ulceration. The treatment is essentially surgical.

107. **Puerperal Fever.**—For a number of years Moran has been making examinations of the relative morbidity of cases examined and not examined internally during the labor with and without rubber gloves. No prophylactic douche was used in either class. Of 317 cases admitted at the Columbia Hospital between July 1, 1899, and Sept. 30, 1900, 180 were examined during and after labor and 138 were not examined. Of those who were examined, 40, or 22 per cent., had a rise of temperature above 100. Of those not examined there were 26, or 19 per cent. A careful clinical and bacteriologic examination revealed in those 40 cases conditions accounting for the temperature, such as sapremia, mastitis and gonorrhea, in a much larger proportion than in those not examined. From Oct. 1, 1900, to May 30, 1901, 237 cases were treated in which rubber gloves were used; 193 cases were examined and 40 not examined. Of those that were examined 43, or 20.7 per cent., had a rise of temperature above 100; of those not examined 7, or 17.5 per cent., had a rise above normal. It appears that the morbidity is dependent on the various general as well as septic infections; that the latter are doubled in number in cases examined over those not examined, and the percentage lower in those cases where gloves were used. He suggests the following

measures during the puerperium: 1. Careful observance of aseptic technique on the part of the physician and nurse, at all times regarding the parturient tract as a surgical wound. 2. Restricting or avoiding internal examinations and cultivating external diagnosis. Where internal examinations are made care should be exercised to separate the labia, so that the examining finger will avoid contact, as far as possible, with the vulva. 3. A thorough knowledge of the mechanism and conduct of labor, with due appreciation of timely interference. 4. Refraining from haste or violence in expulsion of the placenta. 5. Avoiding early rupture of the membranes. Every case of delivery should be regarded as septic until positively excluded by a most careful and painstaking examination.

112. **Non-Surgical Premature Menopause.**—In the case reported by Walter the menses stopped in a young woman, aged 23, after a severe nervous shock. She suffered for a time from bronchitis and cystitis (?). She had severe headache, was very nervous, had characteristic vasomotor disturbances and suffered from hysteric attacks. All efforts to reestablish the function failed in spite of general and local treatment. She still suffers from certain symptoms, though she has not been ill in bed save for some slight illness for about nineteen years. The most irritating symptoms are frequent urination and suddenly appearing diarrhea. There is now complete atrophy of the uterus, ovaries and tubes. The uterus is only about one inch in length, small and flattened antero-posteriorly. The external organs are only slightly atrophied. The mammary glands are round and full. Her general appearance is that of a woman much younger. Her form is graceful and plump, but not at all stout; general disposition is happy and rather cheerful. She has lost slightly in weight, but has had no symptoms pointing to tuberculosis. The author reviews the literature of similar cases and reports several from it. He says the aim of his paper is to point out that: "1. Premature menopause can occur without any previous or subsequent disease. 2. Premature menopause is not necessarily preceded by any change in generative organs. 3. Any changes found in these organs are probably post-menopastic, or due to disease, not all related to the menopause. 4. Premature as well as normal menopause is due chiefly to atrophy, inhibition, or disease of a local menstrual ganglion and nerve plexus, rather than disease or atrophy of generative organs."

123. **Locomotor Ataxia.**—Mitchell discusses the treatment of this condition and remarks that it is hard to judge whether a certain treatment is doing good or not. In almost all cases, certainly in all in the secondary or moderately ataxic stage, rest is of vital importance. Improvement by re-education of impaired motor faculties is one which he leaves to be taken up at some future time. It should not be begun before at least a month's rest in bed with massage. He emphasizes the immense value of this latter measure which can well take the place of general exercise in the maintenance of health. For gastric crises he believes in stomach lavage, which has relieved cases in his hands. The use of firm bandaging with a flannel roller for tabetic pains in those limbs has given great relief in some cases. He has found faradism as efficient as galvanism for this purpose, and would put it first among the three forms of electricity to be employed in such cases.

143. **True Torticollis.**—There is but one variety of wry-neck, according to Hoffman, in which treatment is directed purely to the deformity and which deserves to be spoken of as a distinct affection. In all others the torticollis is simply an incident. This variety is usually present at birth or soon after, and is due to permanent shortening of the sterno-mastoid muscle and to the other cervical structures accommodating themselves to the malposition. This he calls true torticollis. No theory that has been advanced to explain its occurrence has been directly proven; probably the most plausible are abnormal pressure *in utero* and the arrest of muscle development from obscure, perhaps central, origin. The right side is most frequently involved, according to most observers. There is usually more or less fibrous degeneration in the muscle, but in time the other muscles of the side become shorter and even the cervical vertebræ are distorted by unequal pressure. There are also curvatures of the dorsal and lumbar spine and facial and cranial asymmetry in nearly every instance. When of slight degree and seen very early daily manual correction by the mother or nurse will suffice. Mechanical appliances are generally disappointing. As regards operation it is manifestly impossible to cut everything that offers resistance to the correction of the deformity; therefore, division of the sterno-mastoid and forcible stretching of the other tissues are resorted to. He favors subcutaneous tenotomy for this condition and gives illustrative cases thus operated upon. He calls attention to the danger of cutting the jugular vein and the possibility of wounding the common carotid artery. After operation the head is fixed in an over-corrected position by plaster dressing and allowed to remain several weeks, and the post-operative treatment continued many weeks or even months. Usually the sterno-mastoid recovers its function and can be converted into a useful organ if the cut end can find a point of attachment. This usually occurs by new material growing into the gap, but he records an observation where the muscle, though retaining its function, had apparently not united with the lower piece, but had become attached by its free end to the fascia higher up, and from which new attachment it exerted a pull upon the head.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below.

British Medical Journal (London), February 15.

1 Felt Hat Making: Its Processes and Hygiene. Charles Porter.
2 *Typhoid Fever in South Africa: Its Cause and Prevention. George Turner.
3 *Air-borne Typhoid. R. H. Quill.
4 So-called "Remittent" or "Pretoria" Fever. Wentworth Tyndale.
5 The Prevention of Enteric Fever in Armies. George D. N. Leake.
6 The Disinfection of New Clothes. Charles A. Cameron.
7 On Diphtheria Antitoxin Eruptions. Arthur Stanley.
8 Treatment of Chronic Eczema. Aldred Eddowes.

The Lancet (London), February 15.

9 *The General Pathology of Tumors. Charles P. White.
10 On Cleft Palate. W. Arbuthnot Lane.
11 *A Note on the Methods of Conducting Hemolytic Experiments. G. F. Petrie.
12 *On Hemolysis Produced by Certain Bacteria. Aldo Castellani.
13 *The Medicinal Use of the Pressor Substance of the Pituitary Body. F. Golla.

Journal of Tropical Medicine (London), February 1.

14 *The Part Played by the Fleas of Rats and Mice in the Transmission of Bubonic Plague. Bruno Galli-Valerio.
15 Additional Notes on Malarial Fever in St. Lucia; An Analysis of 230 Cases. St. George Gray.
16 Spirillum Fever (Relapsing or Famine Fever). Cuthbert Christy.
17 Malarial Fever as Met with in the Great Lake Region of Central Africa. Albert R. Cook.

Annales de Dermatologie (Paris), January.

18 *Congenital Ichthyosiform Erythroderma with Hyperepidermotrophy. L. Brocq (Paris).—"Erythrodermie Congénitale Ichthyosiforme avec hyperépidermotrophie."
19 Recurring Bullous Ulcer of the Leg. Du Castel (Paris).—"Ulcère bulleux récidivant des membres inférieure."
20 *Improved Technique for Radiotherapy. Oudin.—"Considérations sur la radiothérapie."
21 *Exact Measures in Radiotherapy. Bécère.—"Les mesures exactes en radiothérapie."

Bulletin de l'Academie de Med. (Paris), February 4.

22 Two Local Analgesics Almost Completely Non-toxic. A. Darier. (Paris).—"Deux analgésiques locaux presque exempts de toxicité."

Bulletin de la Soc. Med. des Hop. de Paris, February 6.

23 Nutritive Disorders in Syphilis. E. Gaucher and O. Crouzon (Paris).—"Des troubles de la nutrition dans la syphilis."

Presse Medicale (Paris), February 8 to 15.

24 Diagnosis of Smallpox. H. Roger (Paris).—"Diagnostic de la variole."
25 Comparison of Thyroid, Iodin and Iodid Treatment. Briquet (Armentières).—"La thyroïdothérapie et les traitements iodé et ioduré."
26 Questions in Obstetrics in Case of Pelvic Deformity. Paul Bar (Paris).—"Une question obstétricale dans le cas de viciation pelvienne."

Progres Medical (Paris), February 8.

27 Clinical Exploration of the Auricles. E. Barlé (Paris).—"L'exploration clinique des oreillettes."

Berliner Klin. Wochenschrift, January 27 and February 3.

28 *Prognosis of Operation for Glaucoma. F. Mendel.—"Zur Prognose der Glaucom-Operation."
29 Three Unusual Attempts at Suicide. M. Edel.—"Ueber bemerkenswerthe Selbstbeschädigungsversuche."
30 *Sanatorium and Tuberculin Treatment. Welcker.—"Ueber Heilstätten und Tuberculin-Behandlung."

31 *Symptomatology and Treatment of Chronic Distension of the Lung with Air. F. Riegel.—"Zur Symptomatologie und Therapie der chronischen Lungenblähung (Vagusneurose)."

32 *Tympanites and Phantom Tumors. S. Talma (Utrecht).—"Zur Kenntniss der Tympanitis."

33 History of the Lid Closing Reaction of the Pupil. Meyerhof (Breslau).—"Zur Geschichte der Lidschlussreaction der Pupille."

34 *An Artificial Œsophagus. S. Spiegel (Vienna).—"Ein künstlicher Oesophagus."

35 *Embolism of the Lungs After Laparotomies. A. Oppenheim (Berlin).—"Lungenembolien nach chir. Eingriffen, mit besonderer Berücksichtigung der nach Operationen am Proc. Verm. beobachteten."

36 *Present Status of Tuberculin Treatment. J. Petruschky (Danzig).—"Der gegenwärtige Stand der Tuberculinbehandlung."

37 *Detachment of the Retina in Nephritis of Pregnancy. J. Heilbron.—"Ueber Netzhautablösung bei Schwangerschaftsnephritis."

Centralblatt f. Bakteriologie (Jena), January 18.

38 *Bacteriolytic Action of Nucleases, etc., as Cause of Immunity. R. Emmerich, O. Löw and A. Korschun.—"Die bakteriolytische Wirkung der Nucleasen und Nucleasen-Immunproteïdine als Ursache der nat. und künst. Immunität."

39 *Tests of the Bacillus Pathogenic for Rats. B. Issatschenko (St. Petersburg).—"Untersuchungen mit dem für Ratten pathogenen Bacillus."

40 Two New Nematode Worms. V. Linstow (Göttingen).—"Zwei neue Nematoden aus Metapocerus Cornutus."

January 24.

41 Virulent Diphtheria Bacilli in Cases of Simple Rhinitis. R. O. Neumann (Kiel).—"Virulente Diphtheriebacillen bei einfacher Rhinitis."

42 *Study of the Production of Toxins, with special regard to the Culture Media. A. Zinno (Naples).—"Beitrag zum Studien der Entstehung der Toxine mit bes. Berücksichtigung neuer Kulturböden mit starker Erzeugung von Toxinen."

43 Study of Diatoma. T. Odhner (Upsala).—"Mittellungen zur Kenntniss der Distomen."

44 *Differentiation of the Typhoid and Colon Bacilli with Neutral Red. A. Wolff (Berlin).—"Die Ergebnisse der Neutralrotmethods zur Unterscheidung von Bact. typhi und Coli."

Centralblatt f. Chirurgie (Leipsic), February 8.

45 *Suprapubic Cystoscopy. P. Krashe.—"Ueber suprapubische Kystoscopie."

Centralblatt f. Gynaekologie (Leipsic), January 25.

46 Principles of Cancer Statistics. G. Winter (Königsberg).—"Ueber die Principien der Carcinomstatistik."

47 *Rupture of the Uterus in Cicatrices. H. Peham (Vienna).—"Ueber Uterusrupturen in Narben."

48 Vesicular Mole Accompanying Bilateral Ovarian Cystomata. Baumgart (Giessen).—"Blasenmole bei beiderseitigen Ovarialkystomen."

49 Self-Holding Abdominal Retractor. W. Stoeckel (Bonn).—"Ein sich selbst haltendes Bauchspeculum."

February 1.

50 Polypous Cystoma of the Mucous Glands in the Labium Minus. Agnes Bluhm (Berlin).—"Ein weiterer Beitrag zur Kenntniss der polypösen Schleimdrüsenkystome des Labium minus." (Third Case.)

51 Three Cases of Cesarean Section in Eclampsia. H. Loewenstein (Frankfort-on-Oder).—"Drei Fälle von Kaiserschnitt bei Eklampsie."

52 Three Cases of Cesarean Section according to Fritsch. D. Jurowski (Warsaw).—"Beiträge zur Kasuistik des Kaiserschnitt nach Fritsch."

Centralblatt f. Inn. Medicin (Leipsic), January 4.

53 Staining the Urinary Sediment with Sodium Alizarin-sulphonate. R. Knapp.—"Beitrag z. Färbung des Harnsediments mit alazarinsulfonalsaurem Natron."

54 *Congenital Alkaptonuria. A. E. Garrod.—"Ein Beitrag z. Kenntniss der kongenitalen Alkaptonurie."

55 Stukowenkow's Quantitative Test for Mercury in Urine. B. Bardach.—"Ueber Stukowenkow's Methode der quant. Quecksilberbestimmung im Harn."

February 1.

56 *Early Diagnosis of Typhoid Bacilli. R. Polacco and E. Gemelli (Milan).—"Neuere Untersuchungen über frühzeitige Typhusdiagnose."

Deutsche Med. Wochenschrift (Leipsic), January 6.

57 *Toxic Effects of Sulphite of Soda Used as a Meat Preservative. H. Klonka (Jena).—"Die Giftwirkungen des als 'Präservesals' zur Fleischconservirung verwandten schwefligsauren Natrons."

58 *Myelogenous Leukemia. H. Hirschfeld and E. Tobias (Berlin).—"Zur Kenntniss der myelogenen Leukämie."

59 Diagnosis of Tertiary Syphilis of Pharynx. Levinger (Munich).—"Beitrag zur Diagnose der tertiären Syphilis der Pharynx."

60 Etiologic Importance of Trauma. F. Ritter (Oldenburg).—"Zur ätiologischen Bedeutung des Trauma."

61 *Atropin Treatment of Ileus. A. Weber (Alsfeld).—"Die Atropinbehandlung des Ileus."

62 Wingen's Effective Method of Testing the Daylight in Schools. H. Cohn (Breslau).—"Ueber die neue Wingen'sche Methode das Tageslicht in Schulen zu prüfen."

Muenchener Med. Wochenschrift, February 11.

63 Pulmonary Phthisis in Infancy. A. Qurin (Tübingen).—"Beitrag z. Kenntniss der Lungenphthise im Säuglingsalter (mit Kasuistik)."

64 Study of the Mast-Cells. L. Michaelis (Berlin).—"Ueber Mastzellen."

65 Mast-Cells in Exudates. A. Wolff (Berlin).—"Ueber Mastzellen in Exsudaten."

66 A Rare Deformity of the Biliary Passages. H. Kehr (Halberstadt).—"Eine seltene Anomalie der Gallengänge."

67 Larynx Tube for Chloroform Narcosis Without a Mask. E. Schlechtendahl (Barmen).—"Chloroformnarkose ohne Maske mittelst Kehlkopfkanüle."

68 Moritz's Method of Outlining the Heart and Its Value for the General Practitioner. C. Handwerck (Munich).—"Ueber die Bestimmung des Herzumrisses nach Moritz."

69 Subcutaneous Injuries of the Kidneys. O. Edlefsen.—"Beitrag z. Lehre von den subkutanen Nierenverletzungen" (Concluded from preceding number.)

Virchow's Archiv (Berlin), clxvii, 1, 1902.

70 To My Friends. Rudolph Virchow.—"Zur Erinnerung. Blätter des Dankes für meine Freunde."

71 *Traction Diverticulum in the Œsophagus. H. Ribbert.—"Zur Kenntniss der Tractions-divertikel des Oesophagus."

72 Study of Four Cases of Abdominal Cysts. E. Hedinger.—"Casuistische Beitraege zur Kenntniss der Abdominal-Cysten."

73 *Study of Ten Cases of Idiopathic Cutaneous Sarcoma. L. Philippson.—"Ueber das Sarcoma idiopathicum cutis Kaposi."

74 Bone Focus in Cervix of Fetal Uterus. R. Meyer.—"Knochenherd in der Cervix eines foetalen Uterus."

75 *Two Cases of Necrotic Inflammation of the Œsophagus and Stomach in Scarlet Fever. E. Fraenkel.—"Ueber nekrotisierende Entzündung der Speiseröhre u. d. Magens im Verlauf des Scharlach und über sogen. acute infectiöse Phlegmone des Rachens."

76 Etiology of Pulmonary Tuberculosis. M. Saenger.—"Zur Aetiologie des Lungentuberculose."

77 Retroperitoneal Hernia. A. Bingel. "Ueber Hernia retroperitonealis duodenojejunalis (Treitzii)."

78 Granules in the Lymphocytes. L. Michaelis.—"Ueber Granula in Lymphocyten."

79 Inflammation of Serous Membranes. R. Heinz.—"Weitere Studien über die Entzündung seröser Häute."

Wiener Klin. Rundschau, February 2.

80 *Treatment of Spastic Aphonia. L. Wicherek.—"Casuistischer Beitrag zur Aphonia spastica."

81 *Mental Development of Cretinous Child Treated with Thyroid Extract. T. Heller.—"Ueber die geist. Entwicklung eines mit Thyreoidine behandelten cretinösen Kindes."

Wiener Klin. Wochenschrift, February 6.

82 *Fate of the Diphtheria Bacillus in Alimentary Canal. J. Süsswein.—"Das Schicksal der Diphtheriebacillen im Verdauungscanale."

83 Non-Transmission of Hydrophobia to Fetus. A. Kroklewics. "Beitrag zur Lehre von der Lyssa humana."

Grece Medicale (Syra, Greece), January.

84 *Experiences with Hydrophobia. P. S. Pampoukis (Athens).—"Quelques observations et expériences sur la rage."

85 *Alcoholism in Greece. Vaphas and J. Foustanos (Athens and Syra).—"L'usage des boissons alcooliques en Grèce et ses effets."

Tidsskrift f. d. Norske Laegeforen (Christiania), February 1.

86 Rare Forms of Keratitis. F. Tillier (Fredrikstad).—"Nogle sjeldnere former af keratit."

87 Non-Parasitic Sycosis of the Beard Cured by Roentgen Treatment. S. A. Heyerdahl (Christiania).—"Sycosis non parasitaria barbæ helbredet med roentgenstraaler."

Brazil Medico (Rio de Janeiro), January 8 to 22.

88 *Infantile Gastro-Intestinal Affections. Z. Meirelles.—"Do vomito nas creanças."

89 *Success of Antiplague vaccination at Campos. Jorge Pinto (Rio de Janeiro).—"A vaccina anti-pestosa. Uma lieçao dos factos."

Gazzetta Degli Ospedali (Milan), February 2 and 9.

90 Rigidity of the Spine with Kernig's Sign. U. B. Solimei (Modena).—"Sopra un caso di rigidità vertebrale con presenza del sintoma di Kernig, nonchè di una speciale contrattura muscolare."

91 The Cerebrospinal Syndrome in Lead Poisoning. G. Bazzicalupo (Naples).—"La sindrome cerebro-spinale nel saturnismo (paralisi progressiva saturnina)."

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2 and 3. **Typhoid Fever.**—Turner, as medical officer of health of the Transvaal, argues against the air-borne theory of typhoid. He does not deny its possibility, but thinks that it is not usual or even frequent. As regards flies, he holds a similar opinion. He gives his observations to show that the typhoid in South Africa is almost entirely due to polluted water. The filters sent out for the troops, he claims, were not used or quickly got out of order and the soldiers continually violated hygienic laws in drinking from filthy water-holes and other polluted supplies. Quill, the army medical officer of Ceylon, takes the opposite view, and gives data that were obtained by him in a large camp formed at Diyatalawa in Ceylon for Boer prisoners of war. Here they are kept under discipline and all possibilities of water-borne typhoid guarded against so that this cause of the disorder can be excluded. He maintains that the infection there was air-borne, resulting from emanations from specifically infected latrines, infected dust, or bacilli-laden flies.

9. **General Pathology of Tumors.**—In these two lectures White reviews the subject of tumors. He thinks the classification based on embryology is unsatisfactory and gives the following classification based on their histologic types: 1. A class of organ tumors, or organomata, in which we can recognize distinct organs or parts of organs, not arranged, however, to form a body or part of a body, such as dermoids and teratomata. 2. We have a class of tissue tumors or histiomata in which we can recognize distinct tissues, but not arranged among themselves so as to form organs. This includes the connective tissue tumors (desmomata), lymphoid tissue tumors (lymphomata), muscle tumors (myomata), nerve tissue tumors (neuromata), and epithelial tissue tumors (epitheliomata), not including here, however, the malignant types, but rather the adenomas and endothelial growths. 3. We have cystomata or cell tumors, including: *a*, tumors of indifferent cells (blastomata); *b*, two kinds of tumors of the connective tissue cells, also the lymphoid tissue cells and the muscle cells (sarcomata); *c*, the types of epithelial cells (carcinomata). From this classification we arrive at a definition of tumor. It is a mass of cells, tissues or organs, resembling those normally present in the body, but arranged atypically. It grows at the expense of the body without subserving any useful purpose therein. With this scheme of classification we can conclude: 1. That every kind of tissue in the body has it representative tissue tumor. 2. Every kind of cell, with the exception of nerve cells, has its representative cell tumor. Cell tumors of nerve cells have not been described, but muscle cells are represented by myosarcoma, cartilage cells by chondro-sarcoma, and the different kinds of epithelial cells by the different kinds of carcinoma, etc. 3. Tumor formation is not an isolated process, but must be considered in its relation with other closely allied processes. The life history of tumors is next taken up. He does not support Cohnheim in recognizing them as originating in rudiments composed of embryonic cells, though that may be the case at times. They may take origin directly from the normal tissues or in the tissues of pre-existing tumors, or inflammatory products, and it is not necessary to suppose that the rudiment consisted of the same kind of tissue as that of which tumors are composed. The common factor in tumor formation is not to be found in the rudiment from which the tumor originates. Tumors grow mainly, even entirely, by centrifugal growth, that is, by proliferation of their own cells, but it is possible for the areas of origin to be extended by continuity. Centrifugal growth may be either central or peripheral. If the growth is central the growth will be definitely encapsulated; if peripheral the capsule will be more or less indistinct and the tumor will be infiltrating. The views that have been held as regards teratomata are several, but the author does not accept the parthenogenesis theory, or at least considers it unsatisfactory. The growth of tissue tumors takes place exactly as in normal tissues. As regards epithelial histiomata, White considers the connective tissue altogether secondary in importance to the epithelium in the growth. The growth of the cell tumors differs from that of the tissue tumors in that the growing portions consist of cells more or less loosely held together, but not forming definite tissues. These readily penetrate into the interstices of surrounding tissues. Any formed tissues which may be present in cytomata are of secondary, not primary, formation. In most cases tumors continue to increase in size, but may be limited by a change in structure such as ossification or calcification. Occasionally these tumors may decrease in size or disappear, even in the malignant forms, as has been shown by Sir Wm. H. Bennett. White thinks there is no evidence for the belief that cells of tumors are incapable of functionating. The sebaceous glands of a dermoid secrete sebum, the cells of adenoma or carcinoma of the intestine secrete mucin, and adenomata of the breast sometimes contain a milky fluid. Perhaps the most remarkable physiologic characteristic of tumor cells is the property they have of storing enormous quantities of glycogen, in which they exceed all the normal cells of the body. The question of the presence of glycogen in tumors is briefly considered; its origin and disposal are yet to be worked out. The pathologic changes to which tumors are subject are the same as those to which a normal tissue is liable; various retrogressive processes, mucoid and fatty changes and calcification, necrosis, inflammation, etc. It will be seen that the histiomata and cytomata correspond respectively to simple and malignant types of a clinical classification. According to White the difference between a simple and malignant tumor is to be found in the manner in which it grows. In cell tumors the cells form no definite tissues. Tissue tumors, on the other hand, are primary in their formation from the first. He thinks the clinical features of malignant disease are very imperfectly treated in text-books. There seems to be no account taken of the temperature, and the urine and the blood have not received the attention they deserve. We need much more information on these points, especially as regards the excretion of nitrogen. In the second lecture he reviews certain theories as to the causation of tumors, first describing the cell structure and cell division and remarking that the centrosome and its associated achromatic substance or archoplasm have been strangely neglected by pathologists, notwithstanding they form such an important part of the cell. In malignant growths we find a deviation from the typical form of mitosis—asymmetrical mitosis, multipolar mitosis and amitosis or direct division. The endogenous formation of cells used to be thought a common event in carcinoma, though it has been more recently doubted. Personally, White has no doubt that it does occur. The causes of tumor growth are divided by him into extrinsic and intrinsic factors. Among the former he mentions irritants as important, and we must consider the possibility of the existence of a special extrinsic factor such as animal or vegetable parasite. This parasitic theory of carcinoma is quite extensively reviewed, but he concludes that it will not explain the production and growth of the primary tumor, nor the different species and the manner in which they breed true. We do not find a carcinoma giving rise to a secondary sarcoma process as might be expected were Gaylord and Plimmer's views correct. He doubts whether it will explain the metastases. It will not explain the frequency of malignant disease in certain organs or the rarity of it in certain others or why children possess such an immunity. He thinks we are justified in saying that malignant growths are not to be explained on the assumption of special extrinsic causal factors. The intrinsic causes are next considered and the question of the diminution of physiologic resistance is first mentioned. Ribbert's theory of tissue tension as restraining tissues from overstepping their natural bounds in normal conditions or the theory that ascribes the origin of tumors to loss of nervous control, neither of which are entirely satisfactory, are noticed, though the author believes that that of Ribbert is the most satisfactory one yet considered. He does not agree with Ribbert in assigning so great a part to connective tissue in tumor causation, though the difficulty of deciding the point is very great, as it is rare that one has a chance to examine a carcinoma at a sufficiently early stage. As regards nervous tissue, there is no proof, he says, that the loss of normal control can give rise to tumor formation, but there is, moreover, sufficient evidence that it does not necessarily do so, for example, in skin grafting. Beatson's suggestion that carcinoma of the breast is due in some way or other to ovarian influence has no basis other than that certain cases seem to improve when the ovaries are removed. This is not sufficient to form any groundwork for the theory of the origin of carcinoma, since the removal of the ovaries causes profound alterations in the metabolism of the body at large. In conclusion, he reviews Adami's theory, which agrees to a certain extent with Ribbert's that the initiation of a tumor is due to the alteration of the tissue tension, but also admits the action of prolonged stimulation if at the same time the cells are in some way or other prevented from performing their specific function. He criticises this theory in several points—its ignoring of the centrosome, etc., and the fact that it does not explain the penetration of epithelial cells into the surrounding tissues, which constitutes the essential lesion in carcinomas.

11. **Hemolytic Experiments.**—Petrie suggests certain methods and cautions in regard to hemolytic experiments, and summarizes the steps briefly as follows: "1. Use absolutely

fresh unclotted blood. 2. Prepare in test-tubes of equal size known percentages of the hemolysin in isotonic oxalate solution. 3. Add to each of the tubes exactly the same amount of blood and mix well. 4. Incubate tubes for the same length of time at 37 C. 5. Centrifugalize till all the corpuscles settle at the bottom of the tube, forming a sharp line of demarcation between the blood and the supernatant liquid. 6. In every experiment have control tubes containing isotonic salt solution alone 7. In doubtful cases examine microscopically."

12. **Bacterial Hemolysin.**—Castellani describes his method of repeating experiments of E. and P. Levi to determine whether hemolysis was produced by the typhoid bacillus and in the main he has followed the methods of Neisser and Wechsberg. He tabulates his results and finds that the typhoid bacillus is capable of forming a hemolysin which produces a complete solution of erythrocytes in dog's blood, and the maximum amount of this is found in cultures about two weeks old. The dysentery bacillus gave equally positive results, thus presenting a new point of resemblance to typhoid bacillus. The colon bacillus did not exhibit any marked hemolytic properties, though he says he has only tested two races, and it is possible that other strains may have different properties. He has been successful in obtaining an anti-hemolysin for typhoid bacillus. For the purpose, a rabbit was treated with a filtered typhoid culture which contained active hemolysins. The serum of the rabbit developed anti-hemolytic properties 10 days after the injection of the typhoid culture, and on the addition of 0.05 c.c. of the serum of the treated rabbit to the amount of typhoid hemolysin capable of producing complete hemolysis of 1/20 of a c.c. of dog's blood, the solution of the dog's erythrocytes was inhibited. The serum of a normal rabbit used as a control did not exhibit any anti-hemolytic properties.

13. **The Pressor Substance of the Pituitary Body.**—Schaefer and Vincent have demonstrated the existence of two substances in the infundibular part of the pituitary gland, one producing a rise and the other a fall of blood pressure. They distinguish them as the pressor and depressor substances, the former being soluble in salt solution and insoluble in alcohol and ether, while the depressor substance was soluble in all three. These active substances are not destroyed by boiling. The pressor substance was found to produce its action on the heart and the peripheral arteries; its action is prolonged, and during its period of action a second dose is inactive or nearly so. Schaefer and Magnus find that this pressor substance, unlike suprarenal extract, produces no diminution in the form of the kidney when injected intravenously. The injection is followed by a diminution in the size of the spleen, intestines and extremities with an increase in the volume of the kidneys and a prolonged and pronounced diuresis which, however, lasts for a shorter period than the change in volume of the kidney. The medicinal use of the pituitary body has been rather uncertain, though a certain amount of results has been reported by various authors. A consideration of the physiological properties of the pressor substance of Schaefer and Vincent led Golla to try its effects on the human subject. He says: "its slowing action on the heart beat, unlike that of digitalis, appears to be due to a prolongation of the systole rather than of the diastole. The pressor substance would appear to act exclusively on the sarcoplasm. I have been unable to obtain any marked effect on the muscles of the amphibia rich in the rapidly contracting anisotropic elements such as the gastrocnemius. For clinical purposes the pressor substance purified by repeated washing of the alcoholic precipitate with ether obtained from 80 grains of the dried infundibulum was dissolved in 30 minims of normal saline. I found on injecting three minims of this solution into the mucous membrane of the lower jaw that a definite local vaso-constriction results; the mucous membrane remained blanched for about three-quarters of an hour for a considerable area round the point of injection. On injecting five minims subcutaneously into my right forearm there was a perceptible pallor of the finger nails for a few minutes. The pulse rate fell from 95 to 84, and the wave was appreciably fuller. A subcutaneous injection was next made on a patient suffering from advanced Addison's disease under the care of Dr. H. D. Rolleston. The blood pressure in the radial artery before injection was found to be 120 millimeters of mercury by means of the Hill and Barnard sphygmometer. The pulse-rate was 100. Eight minims of the saline extract were injected subcutaneously into the forearm. Two seconds after the injection the patient complained of a sudden spasmodic contraction of the muscles of the arm and fingers. On feeling the pulse at the radial immediately after injection I was alarmed to find that it almost disappeared for a few seconds. That this symptom was due to the local muscular spasm with which it was coincident is confirmed by the fact that the arterial pulse in the left radial was found to be full and vigorous; 12 minutes after the injection the arterial pressure was found to be 150 millimeters of mercury and the pulse rate was 85. Previous to injection the patient had complained of feeling uncomfortably hot and a couple of minutes afterward he spontaneously remarked that all the heat seemed to have gone inside. Two hours after the injection the pulse rate was 89 and the pulse itself was much stronger and fuller. The patient still complained of feeling cold at the extremities. Three hours after injection the pulse rate was 95 and the blood pressure 135 millimeters of mercury. There were some pain and localized swelling at the site of the injection. There was marked diuresis during the twenty-four hours succeeding the injection; the urine was acid with a specific gravity of 1010. There was no glycosuria, an effect frequently noticed after suprarenal injection. I have taken considerable quantities of the pressor substance by the mouth, but have never been able to record any results, although the substance is unaltered by peptic digestion and is dialysable. The pressor substance would appear to be proteid in nature. It is precipitated from salt solution by trichloracetic acid, gives biuret, xanthroproteic and Millon's reactions. It is not precipitated by saturation with a neutral salt, it is unaffected by peptic, but decomposed by prolonged tryptic digestion. The iodin found in the pituitary is not apparently in combination with the pressor substance. Its cardiac, vascular, and diuretic action would indicate that it may prove to be of service in cases of heart disease."

14. **Bubonic Plague.**—Galli-Valerio takes up the statement of Simond that the transmission of plague is largely due to infected fleas from rats and has investigated the subject thoroughly, studying the different species of fleas found on rats and their tendency to bite man. It appears that one species, the P. serraticeps, which has been gathered off rats, may bite man, but this must be very rare as only one observer has ever obtained it from the rat. He applies to the theory, however, evidence that he has gained from other sources, such as the facts that neither the German Commission nor Mr. Schotelius in India, and during the epidemics at Oporto, Glasgow or Naples, has evidence to prove the transmission of plague to man by fleas been found. He says also the facility with which it is possible to arrest an epidemic of plague where hygienic conditions are good and isolation properly carried out speaks against this theory. If Simond's hypothesis were correct, one might almost fold one's arms in consequence of the difficulty of preventing the diffusion of infected fleas. It requires to be demonstrated, not only that fleas pass from rats and mice to man, but from rat to rat. The question can only be solved by conveying to the body of human beings rat and mice fleas that have lived on plague rats. If the experiment is considered necessary he places himself at the disposal of the committee to undergo it.

18. **Congenital Ichthyosiform Erythroderma.**—Brocq describes a number of cases of this affection. It differs from ordinary ichthyosis by the distinctness of the erythroderma, by the rapid growth of the hair and nails, and by the localization of the lesions which affect principally the bends of the joints, exactly the reverse of the maximum localizations of true ichthyosis.

20 and 21. **Improved Technique for Radiotherapy.**—Oudin points out that the aim of radiotherapy should be to apply the therapeutic rays in as intense and brief a form as possible.

The light should be gauged to a certain standard. He recommends a current of 4 amperes, 15 volts, interrupted twenty times in a second. The tube should be placed with the anticathode 10 cm. from the skin, which brings the glass within 4 to 6 cm. The tube should be "soft," corresponding to a 5 cm. parallel or equivalent spark for a superficial, and an 8 cm. spark for a deep lesion. The first sitting should be for one minute, progressively lengthening the sitting by thirty seconds each day. The treatment must be suspended at the slightest symptom of erythema or disturbance, and postponed until the symptoms have entirely vanished. When it is resumed, the sitting should be three minutes shorter than the last before the erythema developed, and should never be allowed to reach this length again, in case of a superficial lesion, and only regain it very gradually in treating a deep lesion, suspending it again at the slightest symptoms of the reappearance of the erythema. The penetration of the rays should be determined so as to have them always of the same force. This can be accomplished by using Villard's osmo-regulator, Benoist's radiochromometer and Béclère's spark measure or spintermeter, or their equivalents. The osmo-regulator controls the vacuum in the tube, and thus the penetrating power of the rays emitted by the tube can be increased or diminished at will. The electric resistance of the tube can be determined by measuring the length of the spark with the spintermeter, and brought to a certain standard by the osmo-regulator. The radiochromometer determines the kind of rays that are being emitted by the tube, by their power of penetration. It consists of a thin disc of silver set in the middle of a dozen flat rings made of aluminum of progressively increasing thickness, all numbered. The aluminum ring through which the rays pass with a penetrating power exactly equal to that with which they pass through the central silver disc, is the measure of the penetrating power of the rays. The little instrument is mounted like an opera glass with a fluorescent screen instead of lenses. The operator can tell by a glance through it the exact degree of the penetrating power of the rays from the tube. Static electricity has proved most effective in Oudin's experience. The latest researches have confirmed the fact that the therapeutic and injurious effects of the *a*-rays are due exclusively to the *x*-rays themselves and not to the electricity.

28. **Prognosis of Operation for Glaucoma.**—Mendel reports from Hirschberg's ophthalmic clinic that during the last seven years 234 patients have been treated for glaucoma and 258 eyes operated on. Of this number 83 were men, 144 women and 7 children. No operation was performed in 15 cases. The best results were attained by iridectomy in acute inflammatory glaucoma: 82.2 per cent. comparatively or completely cured, and 77.1 per cent. in chronic inflammatory glaucoma. It also improved or at least prevented further injury to the sight in the cases of simple hypertension. The results confirm on the whole those obtained in the previous 569 operations for glaucoma. Iridectomy has maintained its supremacy during the twenty-five years' experience in the clinic, but not to the complete exclusion of other operations. The second eye was never operated on until the first had recovered completely from the intervention. Enucleation was required in 31 cases during the last seven years on account of pain. Haab has recently published similar statistics showing 77 per cent. comparative or complete cures in acute inflammatory glaucoma, and 71 per cent. in simple glaucoma, with 40 per cent. cured under treatment with myotics.

30. **Sanatorium and Tuberculin Treatment in Tuberculosis.**—Weicker claims that the results of sanatorium treatment ought not to be called permanent cures but merely "postponing the fatal termination." The average thirteen weeks' course in a sanatorium is altogether inadequate and consequently adjuvant measures should be continued after dismissal. He thinks experience has shown that tuberculin administered in repeated courses, as a supplement to the sanatorium, offers brilliant prospects of cure of otherwise doomed cases. [See below.]

31. **Symptoms and Treatment of Chronic Distension of the Lungs.**—For years Riegel has been using atropin in subcutaneous injections to arrest and cure neuroses of the vagus. It is especially effective in asthma from this cause.

32. **Tympanites and Phantom Tumors.**—Talma has observed several cases of tympanites occurring each side of the contracted recti muscles. In a recent case this partial tympanites simulated an abdominal tumor, as the upper abdominal muscles were relaxed while there was partial contraction of the transverse muscles and at the same time pronounced contraction of the diaphragm. This combination presented the aspect of an abdominal tumor. There were no stigmata of hysteria, but the patient was evidently a hysteric. The tumor persisted during a supposed sleep, which was probably feigned. It subsided spontaneously during narcosis. Talma also witnessed the development of a typical, hysteric general tympanites in a physician with tendencies to hysteria, whose attention had been attracted to his abdomen by the unusually severe borborygmus of one of his patients. Laxness of the abdominal muscles with contraction of the diaphragm is the cause of the general tympanites.

34. **An Artificial Esophagus.**—Trendelenburg has suggested that the patient should chew each mouthful and then eject it into the funnel-shaped opening of the tube entering the gastric fistula. Spiegel has devised an artificial esophagus on Trendelenburg's principle. The distal end of the tube entering the gastric fistula is inserted in a fistula made for the purpose in the esophagus just above the stricture. The patient masticates and swallows each mouthful normally. It passes down the throat into the upper end of the esophagus, and thence through the artificial tube esophagus into the stomach. Fluids and soft foods are thus ingested without difficulty, but solid food requires some imitation of the natural peristaltic movements to force it along. This is accomplished by a contrivance attached to the tube by which a small ball can be rolled along it. He has also constructed a clockwork device which automatically imitates the peristalsis. The artificial esophagus is worn under the clothing, and is taken out of the esophagus fistula at night and replaced by a stopper to keep it from closing. It is illustrated in the original article, and is to be tried at von Mosetig's clinic.

35. **Embolism of the Lungs After Laparotomies, Especially in Cases of Appendicitis.**—Oppenheim has witnessed five cases of embolism of the lungs after surgical intervention on account of appendicitis. One case was fatal. Acute appendicitis is frequently accompanied by more or less diffuse peritonitis. The toxins generated in the course of the peritonitis affect the heart injuriously, and it also suffers from the forcing up of the diaphragm by inflammatory processes below. The thorax is unable to expand normally in consequence, and this interferes with the heart action. The quantity of blood received from the veins and forced into the arteries is reduced. These conditions favor the development of thrombi. By the time surgical intervention is indicated for the appendicitic abscess, the patient has already well-developed thrombi and is ripe for embolism. Many cases are on record in which this complication of an appendicitic abscess was noted, even in the absence of any operation. It may develop without previous inciting cause, but it usually follows some unusual or rapid muscular effort. In order to reduce the possible dangers from this cause, all patients requiring a laparotomy are moved without effort on their part, and the results have confirmed the advantages of the measure. A square of sail cloth is slipped under the patient on the operating table. A strong frame is then placed over him and the sail cloth sheet is buttoned to the frame. The patient thus lies in a kind of hammock and is lifted by the frame and carried to his bed where the sheet is unbuttoned and may be left under him, ready to carry him back to the table when the dressings are to be changed. Before any laparotomy the condition of the heart and pulse should be investigated. Oppenheim suggests that the moral effect of a laparotomy under local anesthesia may be as injurious to a subject with a weak heart as general narcosis. This assumption is sustained by the experience of Mikulicz and Gottstein, who

V 38
1902

report that lung affections seem to occur with the same frequency after local as after general anesthesia.

36. **Present Status of Tuberculin Treatment.**—The combination of several courses of tuberculin treatment with treatment at a sanatorium has accomplished in Weicker's and Petruschky's experience, results far surpassing those achieved by any other method. It cures cases in which either alone would have proved ineffective. Goetsch has attained good results with a single protracted course of tuberculin treatment requiring from six weeks to twenty-seven months as described in THE JOURNAL of July 13, p. 151. Recovery from tuberculosis is a slow process. Few persons can spare the time and money requisite for such a course, but the combination of an ambulant course of tuberculin, then sanatorium treatment for a few weeks, followed by resumption of ambulant tuberculin treatment, is within the reach of almost every one. The results are even better than those reported by Goetsch, which have marked an epoch in the treatment of tuberculosis. Petruschky thinks that thousands of lives have been sacrificed in the last ten years, which might have been saved if the reaction from the first enthusiasm in regard to tuberculin had not been so exaggerated. We know now how to avoid excessive reaction and how to keep the doses of tuberculin below the fever-producing point. By combining it with sanatorium treatment to strengthen the patient, the cures from the latter will be increased from the present figures of 44.4 per cent., in the first lung stage, to 90 and 100 per cent.; and in the second stage, from 16.7 per cent. to 40 and 50 per cent. Spengler, Turban and Goetsch have long combined the sanatorium and tuberculin treatment, and Petruschky's innovation consists in the idea of frequent repetition of courses of treatment—the "Etappenidea," that is, treatment in stages. He proclaims that early diagnosis by means of tuberculin should be promoted in every way.

37. **Detachment of the Retina in Nephritis of Pregnancy.**—Helbron has collected twenty-one cases and has observed another of this complication of nephritis. The retina soon became attached again, but vision was not always restored to normal. On account of the danger of loss of eyesight, the pregnancy should be interrupted as soon as possible, he asserts, when this complication occurs.

38. **Bacteriolytic Action of Nucleases as Factor in Immunity.**—Later researches have fully confirmed the previous assertions of Emmerich and Löw in regard to the bacteriolytic action of the enzyme, pyocyanase, derived from the bacillus pyocyaneus. A minute quantity is able to kill in a few seconds millions of diphtheria, cholera, plague and typhoid bacilli, and streptococci. The enzyme of the pyocyaneus is therefore heteroform, while that of other bacteria is homoform. The bacteriolytic enzymes become transformed into highly molecular albuminoid compounds—the "Immunproteidines"—in the blood, and artificial immunity is based on the bactericidal action of the enzymes.

39. **Tests of the Bacillus Pathogenic for Rats.**—Issatschenko now proclaims that the bacillus he has been cultivating since 1898, originally derived from gray rats, is not pathogenic for horses, oxen, pigs, dogs, cats, fowls or sheep, even when fed to the animals in large amounts. On the other hand, it killed 431 out of 443 rats to whom it was fed. Tests throughout Russia with bouillon cultures sent for trial were successful in 70.1 per cent.

42. **Production of Remarkably Virulent Bacterial Toxins with Selected Culture Media.**—A series of tests and experiments are described by Zinno which show that the nature of the culture medium is the most important factor in the development of bacterial toxins. He found digested brain substance most remarkable in this respect and ordinary brain substance next. The proportions in case of tetanus toxin were 12,000,000 and 7,000,000 to 1,800,000 in ordinary bouillon with serum. In the case of diphtheria toxin, they were respectively 180,000 and 150,000 to 15,000. By selection of the medium in this way it is possible to obtain toxins much more virulent than has hitherto been supposed possible. His experiments seem to demonstrate that diphtheria toxin is derived from albuminoid molecules already present in the culture material, and that it is not a genuine product of synthesis.

44. **Differentiation of the Typhoid and Colon Bacilli by Neutral Red.**—The agar culture medium is tinted with a solution of neutral red before it is sown with the suspected material. The cultures of coli reduce the stain, while nothing of the kind occurs in the typhoid cultures. Wolff confirms that this method of differentiation is always reliable, and enables the typhoid bacillus to be easily isolated from the feces. It has a single disadvantage, namely, that the differential diagnosis can not be made directly from the plate.

45. **Suprapubic Cystoscopy.**—The fistula consecutive to a suprapubic cystotomy was utilized by Kraske for visually inspecting the bladder, inserting the cystoscope through the fistula after first dilating it with laminaria. In another case a permanent canula was inserted in the opening made by puncture to relieve the retention in a patient with hypertrophied prostate, and the cystoscope was introduced in the same way. It was impossible to introduce the cystoscope through the natural routes in either case. The oversight of the bladder afforded by this method of cystoscopy was so surprisingly extensive and complete, that he suggests its adoption as a routine technique in cases impossible to inspect by the ordinary methods. It is especially advantageous in case of hypertrophied prostate as it allows the entire mechanism of the obstacle to be examined in detail. Without the knowledge thus afforded, it is impossible to perform the Bottini operation in a rational manner. All intravesical operations can be performed with greater facility when illuminated by this suprapubic cystoscopy. It can be done by dilating the opening a few days after puncture and then introducing the cystoscope, or the puncture can be made with a trocar large enough to admit the latter. The simplest method, however, is to use a cystoscope made for the purpose with a trocar tip, so that it can be pushed directly into the bladder. The optical part can be drawn out and the empty shell serve for the irrigation of the bladder if desired. Kraske illustrates a puncture-cystoscope made on this plan.

47. **Rupture of the Uterus in Cicatrices.**—Peham reports three cases from Chrobak's clinic of rupture of the uterus occurring in women who had had a rupture during previous deliveries. Even the cicatrix from a Cesarean operation is liable to rupture during a subsequent birth. The greater frequency of rupture in pluriparæ is probably due to the further laceration of cicatrices left from preceding childbirths. The pregnancy should be interrupted in women who have suffered from an extensive rupture in a previous delivery, especially when it was treated by tamponing and draining alone. He advises removing the uterus as a routine measure when laparotomy has to be performed on account of a ruptured uterus unless the organ can be solidly sutured.

54. **Congenital Alkaptonuria.**—Garrod reports 11 cases of alkaptonuria which occurred in four families. The parents were first cousins in three of the families, but there was no consanguinity in the other. Each family had more than one child thus affected. Meyer observed a case where the parents were closely related. These facts suggest that the alkaptonuria is a chemical deviation from the normal standard, analogous to the more common anatomic malformations. In the case of one infant, the dark stains appeared on the diaper for the first time fifty-three hours after birth, not until the child had taken the mother's milk.

56. **Early Diagnosis of the Typhoid Bacilli.**—Polacco and Gemelli found typhoid bacilli regularly in the roseola on fifty patients in the early stages of typhoid fever. The bacilli are so scanty that they require a liquid medium for further growth. "Vaccinostyle Marechal" was used for the culture medium and the differentiation of the culture was possible in twelve to sixteen hours. [See editorial on p. 586 of THE JOURNAL, March 1.]

57. **Toxic Effects of Sulphite of Soda Used as a Meat Preservative.**—Kionka reports the results of a study of the

toxic effects of "Präservesalz," a product used within the last fifteen years by German butchers for meat (especially minced meat) preservation. It consists mainly of an impure sulphite of soda with sodium sulphate and sometimes a proportion of common salt. In former communications he had maintained the toxic action of sodium sulphite, but his conclusions had been disputed, hence this later investigation. While the animals employed (dogs) showed no special symptoms during the 65 to 67 days of feeding with from 2/3 to a gram of sulphite of soda or from a little less than 1/2 gram of "Präservesalz" to 7 grams, excepting in the case of two pregnant females who aborted, the experiments revealed serious lesions, vascular obstructions, hemorrhage, inflammations in the heart, lungs, kidneys and elsewhere. The findings, he holds, confirm his earlier observations, viz., that the continued ingestion of sulphite of soda even in the usual quantity employed as a meat preservative, causes in dogs a serious intoxication of the blood, producing vascular clogging, hemorrhages and inflammatory degenerative changes in the vital organs, which are to be considered as the result of this action on the blood. The abortion in the two pregnant animals is noteworthy as corresponding with the long known fact of the bad effects of the sodium and magnesium sulphites on pregnant women. There are few other positive facts known in regard to the action of these salts on the human species, but the above is significant as showing the analogy between man and dogs in this respect. Kionka therefore maintains that it is necessary to forbid the use of the sulphite salts for preservation of foodstuffs.

58. **Myelogenous Leukemia.**—Two cases of this disease with clinical histories and blood examinations are reported by Hirschfeld and Tobias. In one the history extends to the postmortem, the other passed out of observation after about six months of treatment. The blood findings showed very wide variations in the relative proportions of the different types of leucocytes, especially in the great and small mononuclear cells, the eosinophiles and the mast-cells, while the polynuclear neutrophiles showed the least variation. This polymorphism was much more marked in the second case than in the first. In both, the mast-cells and the smaller mononuclears were absent in some of the examinations. There were also irregularities in the granular contents of the cells, in their staining reactions, etc. In some of the polynuclear cells there was an absolutely granular free protoplasm; some of the granules of the myelocytes and eosinophiles took on with the triacid stain a decidedly bluish tinge. There were variations also in the form and granular contents of the mast-cells, some of the latter possessing granules with other color affinities besides those of the regular mast-cell granules. The second case reported suffered from tuberculosis as well as from leukemia, a combination which, though rare, has been observed by a number of authorities. The tuberculosis may be imposed upon the leukemia or the latter may call out into activity an existing latent condition. The authors investigated in these cases for proof of Löwit's statement as to the presence of protozoa in leukemic blood. They found bodies similar to those he describes, but not in all the forms, and there were color differences also, which they suggest may be due to the different reagent, Merck's thionin instead of Thalheim's used by Löwit. They do not regard these as of parasitic nature; inoculation experiments were not favorable to this view, producing neither leukemia nor reproducing the alleged parasites.

61. **Atropin Treatment of Ileus.**—Weber concludes from a study of the cases in the literature and his own experience, that previous treatment with opium is the explanation of the inefficacy of small doses of atropin in the treatment of ileus, and also of the tolerance for large doses. Thirty-nine cases have been reported treated with atropin, and only four failed to respond to the injection. Atropin therefore is decidedly to be preferred to morphin. According to experience, if the patient has already taken opium, a subcutaneous injection of .005 atropin can be administered with confidence that in nearly every case the ileus will be relieved in ten to twelve hours. If the symptoms of ileus still persist, the dose can then be repeated unless symptoms of intoxication develop. If this amount, .01 atropin, prove ineffectual in the course of twenty-four hours, the surgeon must be summoned. But if the patient is not already under the influence of opium, the first dose should not be more than .002, followed if necessary by .005 twelve hours later. Atropin treatment is not contra-indicated in any ileus. Even in cases of incarceration which require surgical intervention, the atropin relieves the pain and after the operation induces a copious, harmless stool. Ileus appearing after an abdominal operation should be treated with atropin and not with opium. The atropin may possibly release impacted feces in cases of large scrotal hernia in elderly patients. Atropin should be given a trial in perityphlitis. Any toxic symptoms that develop can be controlled by an injection of morphin. The stomach and intestines should be rinsed out in every case of ileus.

71. **Traction Diverticulum in the Esophagus.**—Ribberts has collected forty specimens of traction diverticulum. He attributes it to some congenital tendency or defective development. An inflammatory process may develop along the lymphatics near the esophagus and the tip of the diverticulum may become involved in the process with consecutive contractions and adhesions. These enlarge the pocket and result in the typical malformation.

73. **Idiopathic Cutaneous Sarcoma.**—Philippson presents the results of study of ten cases of Kaposi's idiopathic sarcoma of the skin. It demonstrates that some virus penetrating into the skin from without induces at its entering point a proliferation of spindle cells or blood or lymph angiomata. After it has remained located at this point for a time, it penetrates into the circulation and reaches the skin again by the way of embolism. This time the hands and face are principally affected. It spreads thence gradually towards the center by the lymph route, affecting the arms, legs and trunk. Occasionally acute embolic exacerbations are observed, and new foci and finally internal metastases develop. The local action of the virus is limited, and the proliferations atrophy in time. The acute irruption of the virus into the circulation causes hemorrhages from the veins. In its general course the affection has some analogy to syphilis. It testifies to the fact that cellular neoformation can be induced by an external stimulus. This has hitherto been accepted only for hyperplastic proliferation.

75. **Necrotic Inflammation of the Esophagus and Stomach in Scarlet Fever.**—Fraenkel states that the necrosis in the two observations he describes was the direct effect of the streptococci which had colonized in the lymphatic canaliculi in the wall of the esophagus and stomach. In one the stomach alone was affected. The process is both erysipeiatous and phlegmonous in its characteristics. It is both anatomically and etiologically identical with laryngeal erysipelas, and the same treatment is required as for analogous affections of the skin and subcutaneous tissue, that is, incision of the edematous mucosa.

80. **Treatment of Spastic Aphonia.**—In the case described by Wicherek, the patient was a healthy young soldier who had been unable to utter a sound for eight months after a scuffle with a comrade who had slapped him in the face and choked him. The traumatism was slight and exclusion of other causes suggested the possibility of hysteria, although no stigmata could be discovered. Faradization of the throat muscles, systematic exercises in speaking and chloroform narcosis all proved ineffectual. The mucosa of the pharynx and larynx was then swabbed with a 20 per cent. solution of cocain, while the tongue was pulled out and held. The patient was then instructed to utter the vowel sound of A, repeating it after another person. After great effort he was able to accomplish this, and repeat it until he could say it fluently. Other vowel sounds were then taught him in the same way, while he put his fingers on the larynx of the person instructing him. Short words and sentences were then tried. At the end of an hour of this exercise he was so exhausted that he had to go to bed. It was repeated again every day, and by the fourth, his aphonia had been entirely conquered.

81. **Mental Development of Cretinous Child Under Thyroid Treatment.**—Heller states that he has never seen in the literature the announcement that thyroid treatment has been systematically employed in schools for mentally deficient children to transform untrainable into trainable subjects. He thinks that the combination of thyroid with pedagogic treatment promises better results than hitherto attained, and describes a case in detail to illustrate the unexpected advantages derived from this combination in treatment of a supposed hopeless cretin and idiot.

92. **Fate of Diphtheria Bacillus in Alimentary Canal.**—Süsswein states that the records of the St. Anna Children's Hospital at Vienna show that diphtheria of the stomach was noticed four times in 146 diphtheria cadavers in six months of 1893, that is, before the introduction of serum treatment. During all the years since there has been only one case known of diphtheric lesions of the stomach. This was a child moribund when first seen. He has recently undertaken to solve the question of the fate of the diphtheria bacillus in the alimentary canal. He examined 8 cadavers and found diphtheria bacilli in the stomach in 4, but it was impossible to grow cultures from more than 2, and in these cases the bacilli displayed an attenuated vitality. He never found them in the intestines. Researches on the bactericidal power of the acids in gastric juice showed that diphtheria bacilli were killed in an hour when the gastric juice contained even as little as .04 per cent., of uncombined hydrochloric acid, .08 per cent. of lactic acid and .054 per cent. of hydrochloric acid in combination. This is the first time, he adds, that the demonstration of an antiseptic power by hydrochloric acid in combination has been offered. Gastric juice from 5 diphtheria patients proved to possess sufficient parasitic action to kill the bacilli although it contained much less acid than normal juice, and no hydrochloric acid not in combination could be discovered. A hemorrhagic erosion in the gastric mucosa would afford favorable conditions for the propagation of bacteria, but they are destroyed by the gastric juice except in the rare cases of total or partial lack of acid. Bauer and Deutsch have established that the secretion of gastric juice is more active after injection of antidiphtheria serum, which explains the lesser frequency of diphtheria of the stomach since serum treatment was inaugurated.

84. **Experiences with Hydrophobia.**—In Pampoukis' experience as superintendent of the Athens Pasteur Institute, he found the incubation was less than a month in 63.4 per cent. of 52 animals which had died from natural rabies; two months in 26.9 per cent., and still longer in 9.6 per cent. The disease first manifested itself during the first month in 8 per cent. of 51 persons who died from hydrophobia; in 54 per cent. during the second month; in 24 per cent. during the third month, and in the fourth month or later, in 14 per cent. The incubation lasted six to seven months in 5 subjects and twelve months in 2. It was shortest in persons bit in the face by a wolf, being from fourteen to thirty-one days in these cases.

85. **Alcoholism in Greece.**—Notwithstanding the widespread consumption of wines in Greece, alcoholism is practically unknown. This is explained by Foustanos as due to the purity of the wine. It is made exclusively from grapes and thus contains the most harmless form of alcohol. The ancient Greeks had no word in their language to express alcoholism, which testifies to the fact that it was also unknown among them.

88. **Infantile Gastro-Intestinal Affections.**—Meirelles proclaims that the diagnosis of gastro-intestinal affections should be based on the chemical reaction of the saliva, stomach contents or stools, and not on the clinical conceptions of gastritis, enteritis and diarrhea. Infantile gastro-intestinal disturbances are rarely idiopathic. Fully 90 per cent. are due to the contents rather than to the alimentary canal itself. He determines the acidity or alkalinity of the saliva, vomit or stools with litmus paper, and treats the disturbances by merely neutralizing the excess of either acid or alkali. He has been treating infants for nine years on these principles, with invariable success. It is a scientific method, and sweeps away at one stroke all the confusion of gastritis, colitis and all other terms which express in reality merely the results of excessively acid or excessively alkaline conditions. He has found a 2 per cent. solution of lactic acid effectual in restoring abnormally alkaline conditions to normal, while in case of a very acid reaction, he administers every hour a teaspoonful of a mixture consisting of 60 gm. of fluid magnesia; 2 gm. of sodium bicarbonate, and 1.5 gm. of sodium salicylate. He suppresses milk for twelve hours and keeps the child on water in severe cases. The alkaline mixture is given before and after taking well alkalinized milk. Boas has pointed out that the albuminoids are well digested in a hyperacid medium, while the carbohydrates and fats are imperfectly digested. The neutralization is supplemented, of course, by calomel and other measures as indicated by the individual case. In case of stomatitis or other lesions of the mouth, an excessively acid saliva maintains them. The mouth should be disinfected, but not with boric acid, as this directly adds to the acidity and aggravates the lesion. A good mouth wash in such acid cases is 6 parts each of sodium salicylate and borax in 200 parts of water. When the vomit or stools or both give an alkaline reaction, he administers a teaspoonful of a 2 per cent. solution of lactic acid every ten or fifteen minutes. He adds to his communication the case-report of an adult treated on these principles, with prompt cure of the gastro-intestinal affection.

89. **Success of Antiplague Vaccination at Campos.**—Pinto is the official chief of the health department of the state of Rio, and this article reports the results of the preventive antiplague vaccination undertaken at Campos during the recent widespread epidemic of plague there. He states that the vaccine was obtained from Terni's Institute at Messina or from the national vaccine bureau, and 1803 persons were vaccinated, all at their homes. One exhibited symptoms of the disease immediately after the vaccination, the other thirty-two days afterward. Of the total number, therefore, only one contracted the plague after being vaccinated, with the exception of the one who was already under the influence of the disease as above mentioned. The one plague patient had the disease lightly. The plague seems to be of a mild character in Brazil, and consequently it is possible that the vaccination had better chances for success owing to some climatic or racial lack of predisposition on the part of the inhabitants. In one district a person was encountered who refused to be vaccinated, and he was the only one who contracted the plague. Many of the vaccinated persons lived or were in contact with plague patients, and nearly all were of the poorer classes, the very ones most predisposed to acquire the disease. Pinto concludes that the facts of the "brilliant, magnificent, amazing effect of the vaccine" in his experience speak louder than words in its favor.

Queries and Minor Notes.

EHRLICH'S TRIACID STAIN.

MADISON, IND., Feb. 3, 1902.

To the Editor:—Will you kindly publish the formula for making Ehrlich's triacid solution test for mucus? W. A. M.

ANS.—The Ehrlich triacid stain is made up as follows:

Saturated aqueous solution of orange G	120 parts
Acid fuchsin	80 parts
Methyl-green	100 parts
Distilled water	300 parts
Absolute alcohol	180 parts
Glycerin	50 parts

Never shake the solution. Pipet from the top what is needed for use.

New Patents.

Patents of interest to physicians, February 4 and 11:

692,497. Making acetyl-cellulose. Maximilian C. L. Althausse, Billwarder-an-der-Billie, near Hamburg, Germany.
692,503. Reversible bandage case. Samuel Bottomley, Providence, R. I.
692,251. Dummy lung-tester. Edmund and U. S. DeMoulin, Greenville, Ill.
692,437. Hydrochlorid of cinnamyl-quinin, and making same. Gotthold Fuchs, Biebrich, Germany.
692,303. Wrinkle-removing device. Julia E. Kendall, Boston, Mass.
692,703. Rubber glove. Jacob Pfeiffer, Jr., Akron, Ohio.
692,704. Rubber glove. Jacob Pfeiffer, Akron, Ohio.

692,360. Artificial limb. James F. Rowley, Chicago.
692,798. Tip for atomizers and nebulizers. Cyrus J. Seltzer, Philadelphia.
692,485. Atomizer and nebulizer. Cyrus J. Seltzer, Philadelphia.
692,552. Combined atomizer and nebulizer. Cyrus J. Seltzer, Philadelphia.
692,721. Atomizer. Cyrus J. Seltzer, Philadelphia.
692,722. Atomizer. Cyrus J. Seltzer, Philadelphia.
692,375. Nozzle. Charles A. Snider, Jersey City, N. J.
692,554. Chair for therapeutic purposes. Johann J. Stanger, Ulm, Germany.
692,803. Stump-socket for artificial limbs. Leo Stumpf, Covina, Cal.
692,556. Artificial eardrum. Anton von Sucherzynski and M. Kohl, Iresiau, Germany.
35,655. Design, massage roller. Charles J. Bailey, Newton, Mass.
693,345. Vaginal speculum. Albert J. Bearer, New Kensington, Pa.
693,138. Preparing and inclosing surgical ligatures. Robert W. Johnson, New Brunswick, N. J.
693,861. Tray-support for physicians' tables. Wm. H. Kersey, Indianapolis.
693,140. Mouth mirror. Wm. E. Knight, Ostrander, Ohio.
693,156. Pharmaceutic implement. Marz F. Rochester, Ingleside, Md.
692,920. Fountain syringe holder. Gustav Schirmer, Chicago.
693,358. Vaginal irrigator. Henricus W. Westlake, Los Angeles, Cal.
35,714. Design, blank for specula. Charles J. Pilling, Lansdown, Pa.
35,715. Design, blank for speculum blades. Charles J. Pilling, Lansdown, Pa.
35,716. Design, blank for speculum blades. Charles J. Pilling, Lansdown, Pa.

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., February 13 to 19, 1902, inclusive:

Henry P. Birmingham, major and surgeon, U. S. A., member of an army retiring board at Fort Leavenworth, Kan.

Jerome S. Chaffee, lieutenant and asst.-surgeon, U. S. A., on the completion of the course of instruction at the Army Medical School, Washington, D. C., to report for duty at the General Hospital, Fort Bayard, N. M., to relieve Lieutenant Louis T. Hess, asst.-surgeon, U. S. A.

Marshall M. Cloud, lieutenant and asst.-surgeon, U. S. A., to report in person to the president of the Army retiring board convened at Fort Leavenworth, Kan., for examination by the board.

Clyde S. Ford, lieutenant and asst.-surgeon, U. S. A., leave of absence extended fourteen days.

Charles E. Freeman, contract surgeon, now at San Francisco, Cal., to report for transportation to Manila, P. I., for assignment in the Division of the Philippines.

Joseph N. Henry, major and surgeon, Vols., now at Philadelphia, Pa., on leave of absence, will proceed on the expiration of his leave to Fort Slocum, N. Y., to accompany recruits via San Francisco, Cal., to Manila, P. I., where on arrival he will report for assignment in the Division of the Philippines.

Louis T. Hess, lieutenant, asst.-surgeon, U. S. A., on being relieved from duty at the General Hospital, Fort Bayard, N. M., to proceed to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Carl R. Hexamer, captain and asst.-surgeon, Vols., now at San Francisco, Cal., is honorably discharged from the service of the United States, to take effect Feb. 28, 1902.

Allen D. McLean, captain and asst.-surgeon, Vols., having tendered his resignation, is honorably discharged from the service of the United States, to take effect Feb. 17, 1902.

Ernest E. Roberts, contract surgeon, now at Las Cerillos, N. M., to the Division of the Philippines, via San Francisco, Cal.

Paul Shillock, major, surgeon, U. S. A., member of an army retiring board at Fort Leavenworth, Kan.

Sanford H. Wadhams, lieutenant and asst.-surgeon, U. S. A., from Columbus Barracks, Ohio, to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Llewellyn P. Williamson, lieutenant and asst.-surgeon, U. S. A., from the Division of the Philippines to duty at Columbus Barracks, Ohio.

Marlborough C. Wyeth, major and surgeon, U. S. A., leave of absence for one month granted on his arrival in the United States.

Appointments, Promotions, Retirements, Etc.,

recorded in the Adjutant-General's Office between Jan. 15 and Feb. 15, 1902:

U. S. Army, Promotions.—To be assistant surgeons general, with rank of colonel, Jan. 1, 1902: Lieut.-Col. Benjamin F. Pope, deputy surgeon-general, and Lieut.-Col. James P. Kimball, deputy surgeon-general. To be deputy surgeons-general, with rank from Jan. 1, 1902: Major John Van R. Hoff, surgeon, and Major George W. Adair, surgeon. To be surgeons with the rank of major: Captain Ogden Rafferty, asst.-surgeon, Dec. 9, 1901, Captain James D. Glennan, asst.-surgeon, Jan. 1, 1902, and Captain Alfred E. Bradley, asst.-surgeon, Jan. 1, 1902.

Died.—Colonel Benjamin F. Pope, assistant surgeon-general, Feb. 14, 1902, at Manila, P. I.

U. S. Volunteers, Appointments.—To be surgeons, with the rank of major: Captain William D. Shelby, asst.-surgeon, Vols., and Captain Lewis T. Griffith, asst.-surgeon, Vols. To be asst.-surgeons, with rank of captain: Thurston Smith, of Indiana, contract surgeon; Hyman M. Cohen, of Maryland, contract surgeon, and Harold L. Coffin, of Maine, contract surgeon.

Honorably Discharged.—Captain Frank D. Pease, asst.-surgeon; Captain Frank A. E. Disney, asst.-surgeon, and Captain John T. H. Slayter, asst.-surgeon.

Commission Vacated by New Appointment.—By Major James D. Glennan, surgeon, U. S. A., his commission as major and surgeon, U. S. Vols., Jan. 1, 1902.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ended Feb. 20, 1902.

Surgeon J. J. Kinyoun, granted leave of absence for two months and three days from February 16.

P. A. Surgeon M. J. Rosenau, detailed to represent the service at meeting of the New York Academy of Medicine, to be held at New York City, February 20.

P. A. Surgeon E. K. Sprague, to proceed to Port Huron, Mich., for special temporary duty.

Asst.-Surgeon C. E. Decker, granted extension of leave of absence for fifteen days from February 15, on account of sickness.

A. A. Surgeon J. A. Moncure, granted leave of absence for 30 days from February 15.

A. Surgeon B. Y. Harris, granted leave of absence for fifteen days from February 15.

A. A. Surgeon S. H. Hodgson granted leave of absence for thirty days from March 1.

A. A. Surgeon W. R. Hunter, granted leave of absence for two weeks from February 1.

Senior Pharmacist F. H. Peck, relieved from duty at St. Louis, Mo., and directed to proceed to Evansville, Ind., and report to medical officer in command for duty and assignment to quarters.

Junior Pharmacist C. W. Stephenson, upon being relieved from duty at Evansville, Ind., to proceed to St. Louis, Mo., and report to medical officer in command for duty and assignment to quarters.

RESIGNATION.

Surgeon J. J. Kinyoun resigned to take effect April 19, 1902.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended Feb. 21, 1902.

SMALLPOX—UNITED STATES.

California: Eureka, Jan. 27, 1 case imported; Humboldt County, Jan. 27, 5 cases in lumber camps; Los Angeles, Feb. 1-8, 3 cases; Sacramento, Feb. 1-8, 1 case; San Diego, Feb. 1-8, 1 case; San Francisco, Feb. 1-8, 4 cases.
Colorado: Denver, Dec. 28-Feb. 8, 12 cases.
Illinois: Belleville, Feb. 8-15, 2 cases.
Indiana: Evansville, Feb. 8-15, 5 cases.
Iowa: Clinton, Feb. 8-15, 1 case.
Kentucky: Covington, Feb. 8-15, 11 cases; Lexington, Feb. 8-15, 2 cases.
Louisiana: New Orleans, Feb. 8-15, 1 case.
Maine: Portland, Feb. 1-15, 6 cases.
Maryland: Baltimore, Feb. 8-15, 1 case.
Massachusetts: Boston, Feb. 8-15, 38 cases, 6 deaths; Cambridge, Feb. 8-15, 5 cases, 1 death; Everett, Feb. 8-15, 3 cases; Malden, Feb. 8-15, 1 death; Medford, Feb. 8-15, 1 case; New Bedford, Feb. 8-15, 1 case; Somerville, Feb. 8-15, 1 case; Taunton, Feb. 8-15, 3 cases; Weymouth, Feb. 1-8, 1 case.
Michigan: Bay City, Feb. 8-15, 3 cases; Detroit, Feb. 8-15, 5 cases; Grand Rapids, Jan. 29-Feb. 15, 3 cases; Ludington, Feb. 8-16, 2 cases; Wimond, Feb. 1-8, 1 case.
Nebraska: Omaha, Feb. 8-15, 46 cases, 1 death; South Omaha, Feb. 1-17, 61 cases.
New Hampshire: Nashua, Feb. 8-15, 2 cases.
New Jersey: Camden, Feb. 8-15, 3 cases, 1 death; Jersey City, Feb. 8-16, 22 cases; Newark, Feb. 8-15, 20 cases, 7 deaths.
New York: Binghampton, Feb. 8-15, 9 cases; Mount Vernon City, Feb. 18, 1 case; New York, Feb. 8-15, 58 cases, 14 deaths.
Ohio: Cincinnati, Feb. 7-14, 13 cases; Cleveland, Feb. 8-15, 1 case; Hamilton, Feb. 8-15, 5 cases; Youngstown, Feb. 1-8, 3 deaths.
Pennsylvania: Allentown, Feb. 1-8, 1 case; Norristown, Feb. 8-15, 2 cases, 2 deaths; Philadelphia, Feb. 8-15, 74 cases, 19 deaths; Pittsburg, Feb. 12, 1 case; Reading, Feb. 10-17, 2 cases; Scranton, Feb. 1-15, 2 cases; Williamsport, Feb. 8-16, 5 cases.
Rhode Island: Providence, Feb. 8-15, 1 case, 1 death.
South Carolina: Charleston, Feb. 8-15, 3 cases.
Tennessee: Feb. 8-15, Memphis, 12 cases; Nashville, 1 case.
Texas: Houston, Feb. 1-15, 24 cases, 1 death.
Washington: Spokane, Feb. 1-8, 20 cases; Tacoma, Feb. 1-8, 4 cases.
Wisconsin: Fond du Lac, Feb. 8-15, 2 cases; Green Bay, Feb. 9-16, 16 cases, 1 death.

SMALLPOX—FOREIGN.

Austria: Prague, Jan. 18-25, 15 cases.
Belgium: Ghent, Jan. 25-Feb. 1, 2 deaths.
Canada: Winnipeg, Feb. 1-8, 4 cases.
Colombia: Cartagena, Jan. 27-Feb. 2, 3 deaths; Panama, Feb. 1-10, 50 cases.
France: Paris, Jan. 18-Feb. 1, 11 deaths.
Great Britain: Dundee, Jan. 25-Feb. 1, 1 case; Glasgow, Jan. 31-Feb. 7, 13 cases, 1 death; Liverpool, Jan. 25-Feb. 1, 3 cases; London, Jan. 18-Feb. 1, 2906 cases, 90 deaths.
India: Bombay, Jan. 7-14, 1 death; Calcutta, Jan. 4-11, 3 deaths; Karachi, Jan. 5-12, 13 cases, 1 death; Madras, Dec. 28-Feb. 3, 2 deaths.
Italy: Naples, Jan. 25-Feb. 1, 5 cases.
Mexico: City of Mexico, Jan. 26-Feb. 2, 1 case.

YELLOW FEVER.

Mexico: Vera Cruz, Feb. 1-8, 4 cases, 4 deaths.

CHOLERA.

India: Bombay, Jan. 7-14, 1 death; Calcutta, Jan. 4-11, 31 deaths; Madras, Dec. 28-Jan. 3, 4 deaths.

PLAGUE.

China: Hongkong, Dec. 28-Jan. 11, 1 case, 1 death.
India: Bombay, Jan. 7-14, 250 deaths; Calcutta, Jan. 4-11, 36 deaths; Karachi, Jan. 5-12, 24 cases, 23 deaths.

V 38
1902